New Attack On Terminal Delay

August 12, 1957

RAILWAY AGE *weekly*

Draglines cut manual handling sharply

MATERIALS HANDLING

What's Here...What's Ahead?

50 cents A Simmons-Boardman TIME-SAVER Publication

Rolling Steel Doors

Manually, Mechanically or Electrically Operated

MAHON CHAIN-GEAR OPERATOR

MAHON STANDARD POWER OPERATOR 920-P

The selection of the right type of door for an opening is an important decision. This is particularly true in loading dock openings, truck openings and railroad openings where the time element and operating space requirements are primary considerations. This is where the rolling steel door comes into its own . . . because, a quick-opening, quick-closing, power operated rolling steel door saves both time and space. The vertical roll-up action is fast, requires no usable space either inside or outside the opening, and there are no overhead tracks or other obstructions to restrict headroom and interfere with handling or goods stacking adjacent to the opening. No other type of door can give you this compactness in operation. And no other type of door can give you the positive security, firesafety and permanence of a good rolling steel door . . . all-metal construction reduces maintenance to a negligible factor, and assures you a lifetime of continuous trouble-free service. When you buy a rolling steel door, it will pay you to check specifications carefully . . . you'll find that Mahon doors are built better to give you better service over a longer period of time—for instance, the galvanized steel in Mahon curtain slats is BONDERIZED and DIP-COATED with Synthetic Enamel which is baked on at 350° F. prior to roll-forming. This is just one of the extra-value features of Mahon Rolling Steel Doors . . . comparison will disclose many others that add up to a much better investment. See Sweet's Files for information, or write for Catalogue G-57.

THE R. C. MAHON COMPANY • Detroit 34, Michigan

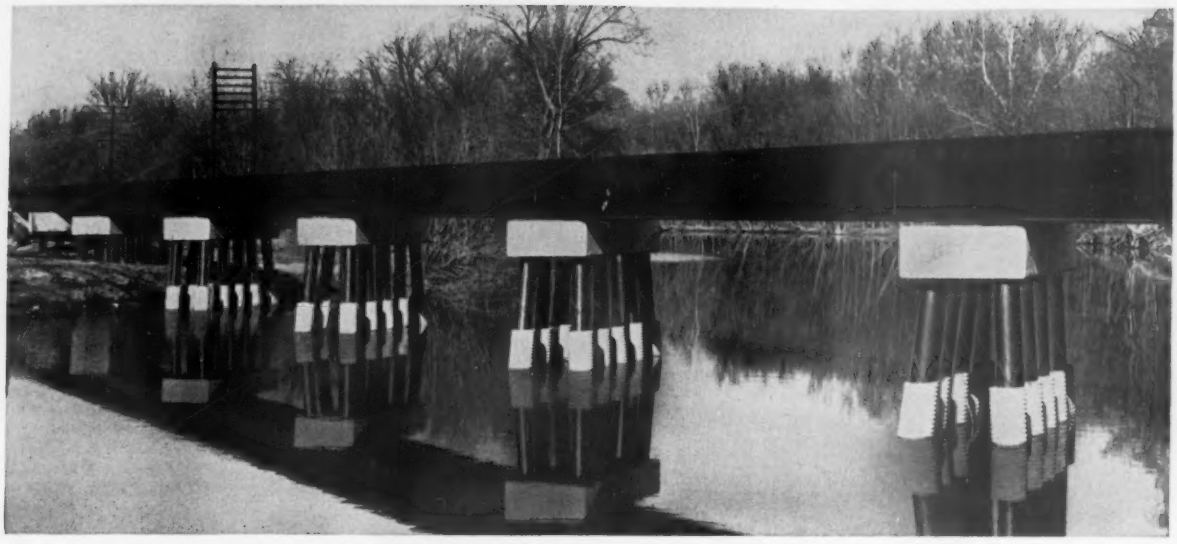
Sales-Engineering Offices in Detroit, New York and Chicago • Representatives in Principal Cities

Manufacturers of Rolling Steel Doors, Grilles, and Automatic Underwriters' Labeled Rolling Steel Fire Doors and Fire Shutters; Underwriters' Rated Fire Walls; Insulated Metal Curtain Walls; Electrified M-Floors; Acoustical and Troffer Forms; and Steel Roof Decks and Long Span M-Decks.

ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Above are Two of Three Mahon Power Operated Rolling Steel Doors installed in double truck openings in a new plant for Nicolay-Dancey, Inc., Detroit, Michigan. In this installation, Doors are mounted outside while Power Operators are mounted inside with Mahon Thru-the-Wall Drive. Harold D. Ilgenfritz, Architect. F. H. Martin Company, General Contractors.

MAHON



Finished view of rebuilt structure across Sugar Creek. Collars of Armco Corrugated Metal Pipe extending above water level provide protection against floating debris.

Unique Construction Method Used To Rebuild Bridge with Armco Piles

When originally constructed, the Pennsylvania Railroad Bridge over Sugar Creek in southern Indiana consisted of five steel spans supported on wood pile bents with wood caps and blocking.

Several years ago it was evident that the blocking and piles had to be replaced. New bents were designed using Armco Steel Pipe Piles. Here's how the job was done.

First, a temporary tower bent was driven in the center of each existing span; then a turntable was mounted on top of the bent. Each span could be opened to permit driving the Armco Piles under the original structure and also quickly closed for railroad traffic.

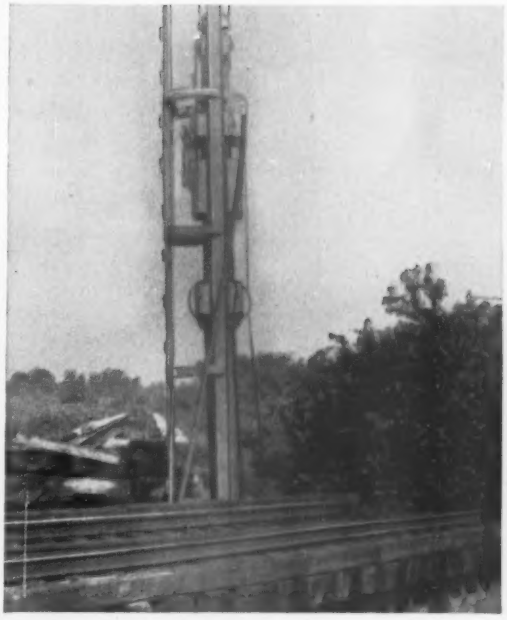
After the Armco Piles were driven, filled with concrete and topped with a concrete cap, the existing superstructure was shifted onto the new supports and the old piles removed.

* * *

Write us for complete data about Armco Steel Pipe Piling. Armco Drainage & Metal Products, Inc., 4937 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation. In Canada: write Guelph, Ontario. Export: The Armco International Corporation.

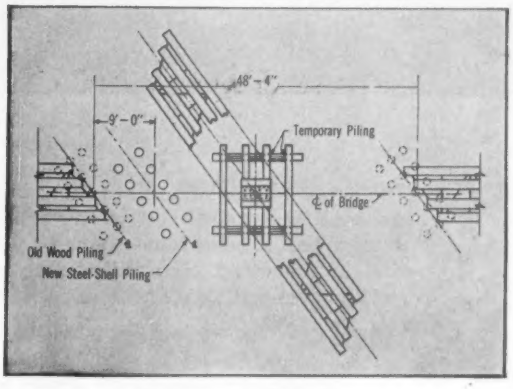
ARMCO®

ARMCO STEEL PIPE PILING



With the span swung out of the way on a special turntable, it was easy to drive the Armco Pipe Piles on correct line.

The contractor devised this turntable arrangement to permit driving without disturbing the existing substructure.



The forged wheel blank shown above is about to be rolled and expanded to final rim contour and size on the Edgewater Wheel Rolling Mill—the most powerful mill of its kind in the world. The rolling process, plus advanced metallurgical techniques account for the extra mileage of Edgewater Wheels.

Edgewater Steel Company

P. O. BOX 478, PITTSBURGH 30, PENNA.

GEARED TO PROGRESS
PRI
MEMBER

RAILWAY AGE *weekly* August 12, 1957 • Vol. 143, No. 7

Week at a Glance

Departments

Freight Car Loadings 43
New Equipment 43
New Products Report 35
People in the News 45
Railroading After Hours ... 40
Railway Market 43
Supply Trade 45
The Action Page 50

Editorial and Executive Offices
● **New York 7, 30 Church St.**

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher

Executive Editor ..... Joe W. Kizzia
Managing Editor ..... C. B. Tavenner
News & Financial Editor .. Fred C. Miles
Traffic-Transportation ... G. C. Hudson
Mechanical ..... H. C. Wilcox
F. N. Houser, Jr.
Electrical ..... A. G. Oehler
Signaling & Communications
John H. Dunn Robert W. McKnight
Regional News ..... Robert B. Keane
Presentation ..... Franklin Ryan
Librarian ..... Edith C. Stone
Editorial Assistants
Ann Ortlinghaus June Meyer
Art Director ..... Russell F. Rypsam

● **Chicago 3, 79 West Monroe St.**

Editor Emeritus ..... Samuel O. Dunn
Western Editor .... Wallace W. Abbey
Traffic-Transportation .. T. H. Desnoyers
Mechanical ..... Norman E. Gillespie
Engineering ..... M. H. Dick
R. E. Dove R. M. Schmidl
Regional News .... Augustus D. Welty
Editorial Assistant ..... Wanda Brown

● **Washington 4, National Press Bldg.**

Washington Editor ..... Walter J. Taft

Railway Age, established in 1856, is indexed by the Industrial Arts Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn. James G. Lyne, president. Arthur J. McGinnis, executive vice-president and treasurer. F. A. Clark, vice-president and secretary.

Rate hike to yield $443 Million ..... p. 9

Added to prior "interim" boost it gives railroads total of $898 million annually. ICC says carriers must depend on new technologies to better rate of return.

Will this raise lead to another? p.10

Effect of Ex Parte 206 decision can't be fully evaluated road-by-road but attitude prevails that increase just wasn't enough.

Materials handling: what's here, what's ahead p.12

The search is on for ways to extend and expand the highly mechanized techniques of modern classification yards to other areas of railroading. Can some of the principles of coal transport, for instance, be applied to passenger, mail and LCL service?

How the RF&P got better track at less cost p.18

Cooperation from the operating department, extended access roads, stabilization of work forces and a high degree of mechanized work have bent the maintenance cost ratio curve like a wind-whipped birch.

New car 'saves' tin plate traffic p.24

To keep valuable tin plate traffic on the railroad the EJ&E made a careful study of its shipping and loading practices—came up with a technique that cut both damage to lading and dunnage cost.

How are they doing—on the Norfolk & Western? p.32

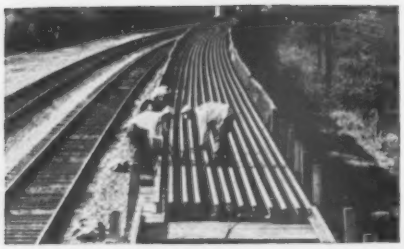
Thriving in tough times, President Smith tells Railway Age. But, mindful of the climbing cost of doing business, he says his road and others have to get adequate rates.

New attack on terminal delay p.38

At Chicago, which could be viewed as the testing area for the country on this problem, vigorous efforts are under way in the effort to speed cars through interchange terminals where bottleneck conditions can easily develop.

The Action Page—Let's look at the gateways p.50

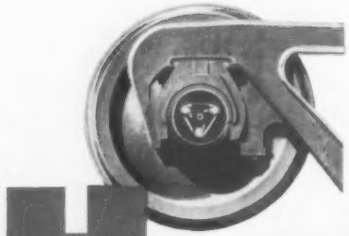
If Road A and Road B both give good service but there's a log-jam in interchange operations their efficiency is vetoed. The connecting terminals need attention when capital improvement funds are "divvied up."



Why there's much less wait for freight today

ONE REASON IS WELDED RAIL. Many will miss the rhythmic "clickity-clack" of wheels on track. But by eliminating troublesome bolted rail joints, welding helps trains roll smoother and faster, with far fewer delays due to track maintenance work.

ONE MORE BIG REASON IS HYATT HY-ROLL BEARINGS for non-stop freight. No need to delay *this* car for bearing inspection or lubrication—he can see at a glance they're dependable HYATT Hy-Rolls! That means there's a 3-year lubricant supply sealed in. It means no more hotboxes. It means husky *straight cylindrical rollers* with extra load-carrying capacity for extra reliability. That's why 38 leading lines have already adopted the HYATT Hy-Roll as a basic part of their modernization programs —to help give America even faster freight service.
Hyatt Bearings Division of General Motors Corporation, Harrison, N. J.



Another GM GENERAL MOTORS contribution to railroad prosperity

HYATT HY-ROLL BEARINGS
FOR NON-STOP FREIGHT

Week at a Glance CONT.

Current Statistics

Operating revenues, six months	
1957	$5,233,825,887
1956	5,236,344,953
Operating expenses, six months	
1957	$4,110,382,398
1956	4,037,305,569
Taxes, six months	
1957	$541,759,233
1956	558,823,136
Net railway operating income, six months	
1957	$450,303,531
1956	511,593,738
Net income estimated, six months	
1957	$345,000,000
1956	404,000,000
Average price 20 railroad stocks	
August 6, 1957	92.24
August 7, 1956	103.60
Carloadings revenue freight	
Thirty weeks, 1957	20,548,601
Thirty weeks, 1956	21,325,629
Average daily freight car surplus	
Wk. ended Aug. 3, 1957	12,276
Wk. ended Aug. 4, 1956	25,944
Average daily freight car shortage	
Wk. ended Aug. 3, 1957	2,185
Wk. ended Aug. 4, 1956	5,254
Freight cars on order	
July 1, 1957	91,810
July 1, 1956	129,409
Freight cars delivered	
Six months, 1957	51,411
Six months, 1956	33,189

•

Advertising Sales Department

Duane C. Salisbury, vice-president, director of sales
New York 7, N.Y., 30 Church st., WO-4-3060
J. S. Vreeland, vice-president, F. T. Baker, W. E. Glasby, J. C. Lyddy
Chicago 3, Ill., 79 W. Monroe st., RA-6-0794
J. R. Thompson, vice-president, J. W. Crossett, J. D. Dolan, W. J. Catenby
Cleveland 13, Ohio, Terminal Tower, MA-1-4455, H. H. Melville, vice-president
C. J. Fisher, H. M. Blunt
Atlanta 9, Ga., 22 Eighth st., N.E., J. S. Crane
Dallas 19, Tex., 3908 Lemmon ave., Lakeside 2322, Joseph Sanders
Los Angeles 17, Cal., 1151 W. Sixth st., MA-6-0553, Fred Klaner, Jr., B. J. Erickson
Portland 5, Ore., 1220 S.W. Morrison, CA-7-4993, L. B. Conaway
San Francisco 4, Cal., 244 California st., GA-1-7004, Lewis Vogler
London E. C., 1 Eng., 103 Newgate st., Sibley-Field Publishing Co., Ltd.
Frankfort am Main (16), West Germany, Wittelsbacher Allee 60
Georg J. Linder
Continental European Representative

•

Subscription to railroad employees only in U.S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year, in other countries, $15 a year. Single copies 50c, except special issues. Concerning subscriptions write R. C. Van Ness, Circulation Director, 30 Church st., New York 7.

Short and Significant

Air fare boost for domestic flights . . .

has been balked by the Civil Aeronautics Board. This despite urgency stressed by airlines in petition for "emergency" boost.

One super-duper transport union? . . .

And this a part of the Teamsters organization? That's what embattled Teamster V-P Hoffa reportedly wants. Rail labor leaders have been noticeably less than eager to endorse the idea.

Coal pipeline unjammed . . .

Pittsburgh Consolidation Coal Company's 110-mile coal pipeline in eastern Ohio, which jammed on its first run last February, at last has successfully transmitted a load of some 400 tons. It's expected that a period of continuous test operation will precede a press preview in September. (Three railroads were granted options to purchase an interest in the pipeline; as yet, none has).

Still running strong at 23 . . .

the Burlington's "Pioneer Zephyr" recently took on a new assignment—the 366-mile daily round-trip between St. Joseph, Mo., and Lincoln, Neb. First run for "Pioneer" was Lincoln-St. Joseph-Kansas City, Mo., in 1934.

From the Great Lakes to Mexico . . .

is the publicized area covered by the newly-merged American Barge Line and the Commercial Transport Corporation. New company, said to have longest route of any inland water common carrier barge line, has a fleet totaling 51 towboats and 570 diversified types of barges and a payroll of 3,000.

St. Lawrence Seaway tolls . . .

will be discussed by prospective seaway users and the St. Lawrence Seaway Development Corporation toll committee at meetings set for Sept. 9 in Washington and Sept. 11 in Chicago. Public hearings on toll rates will be held later, according to corporation officials.

Trains over buses . . .

Greyhound is reported planning to construct a $3 million, block-square, single-story bus terminal in Pittsburgh, beneath a Pennsylvania Railroad viaduct adjacent to Pennsylvania Station. The bus company's present Pittsburgh terminal was built 20 years ago; and since then, according to Greyhound's manager, the number of bus operations has quadrupled.

Revision of the so-called Red Book . . .

on power or train brakes has been submitted to special letter ballot vote of the member roads. Ballots are returnable on or before noon, Friday, August 30.

The *new* 60,000 Ton S.S. Ore Titan is being unloaded by the *newest* Heyl & Patterson traveling boat unloader at the CANTON R. R. ORE PIER AT BALTIMORE. The last 3 of 4 unloaders shown in this picture were built by Heyl & Patterson who have pioneered unloading equipment since 1904.

These versatile, high-capacity H & P unloaders feature variable voltage controlled turntable trolleys to provide speedy unloading and clean-up, thus contributing to shortest turn-around time for both small and large carriers.

The ore is handled from ships through weigh hoppers directly into railroad cars or to a highline belt conveyor for remote loading into cars.

For economical, efficient and reliable dock operation, install a Heyl & Patterson Unloader designed for your specific requirements, and remember . . .

When Experience Counts... Count on Heyl & Patterson

Heyl & Patterson INC.

55 FORT PITT BLVD. • PITTSBURGH 22, PA.

70 YEARS OF SERVICE

RAILWAY AGE
The Industry's Newsweekly

Rate Hike to Yield $443 Million

It will leave total Ex Parte 206 yield at $898 million per year, about $700 million less than railroads sought—Carriers advised to look to advances in art of railroading for improved rate of return

Approximately $443 million a year will be added to freight revenues of the railroads as a result of the Interstate Commerce Commission's August 6 decision in the Ex Parte 206 case. The decision authorized publication of the increases on 15 days notice and tariffs were filed promptly to make them effective August 26.

The decision brings the total Ex Parte yield up to $898 million a year, the interim increases in effect for several months having been calculated to yield about $455 million. The railroad petitions sought increases which would have yielded about $1.6 billion a year, so the authorized advance is some $700 million short.

While the commission undertook to authorize advances which would cover increased costs, including the wage increase scheduled to become effective November 1, it rejected pleas of eastern and western roads for action on their asserted need for higher rates of return.

"We believe," the report said, "that the railroads must look primarily to technological advances in the art of railroading to achieve greater efficiency and improved service as a major hope for increasing their rates of return."

Previously, the report had noted how the Interstate Commerce Act was amended in 1933 to rewrite the rate-making rule, removing provisions relating to rate of return and recapture of "excess" earnings. "The act as now worded makes no reference to a fixed rate of return," the report continued. It went on to cite pertinent court decisions and then said:

"We do not construe these decisions as requiring us to prescribe reasonable rates for individual railroads, because individual railroads must compete with each other for traffic. However, it is clear that there is no statutory requirement or statement of policy requiring the making of rates to yield a certain return on investment either in the United States as a whole, or in various rate territories."

Meanwhile, however, the commission did leave the door open for the railroads to come back for more if they encounter further increases in cost. At the same time it indicated its preference for the selective approach, and its expectation that something would be done to modify the general-increase pattern. The report said:

"The record makes amply clear that the carriers are faced with other increased costs by the end of 1957. . . . When these become an actuality, the respondents may further petition us in this proceeding to modify our outstanding orders so that they may file schedules, accompanied by adequate justification, subject to protest and possible suspension, proposing further moderate increases in rates and charges to cover additional increases in expenses which have materialized.

"We have heretofore suggested that the time has probably come when consideration should be given to ways of increasing rates other than by means of horizontal increases. The carriers should give consideration to this suggestion. If tariffs are filed, as outlined herein, they should reflect the results of this consideration."

The commission dealt with different proposals of railroads in Eastern, Western and Southern territories. Including their interim increases, the eastern and western roads sought intraterritorial and interterritorial advances of 22%. Railroads in Southern territory (other than the Southern and Piedmont & Northern) sought 15% intraterritorially and interterritorially.

The absence of the Southern drew this comment from the commission: "Whether the railroads will be able to maintain the

Jersey Railroaders Stage 'Blowout' for PRR Veteran

Hand-warming stunt by associates in Railroad Committee of Northern New Jersey marked celebration for Chairman A. J. Johnston shown blowing out candles signalling 40 years of Pennsylvania Railroad service. He's now passenger station manager, New York region, at Newark, N. J. Helping to set up fete were (left to right) J. J. Galuppo, superintendent, Jersey Central; T. V. Wall, division passenger agent, Lackawanna; and J. K. Larkin, general agent, CNJ.

D&H Dresses up Trucks to Promote Service

"Dependable, Hi-Speed" service provided by the Delaware & Hudson is being heralded in the highways and by-ways by this use of the van sides for some mobile display advertising. All maintenance of way department trucks have been converted into roving billboards featuring the full-color message.

---

increases hereinafter authorized will depend to some extent upon whether the Southern will make similar increases in its freight rates and charges."

Latest advice from the Southern's president, Harry A. DeButts, is to the effect that his road will not go along. Its policy as to the interim increases was to take them except where it might lose traffic.

For railroads taking them, the increases now authorized will supplant the interim advances. Subject to exceptions and holddowns, they will bring the Eastern-territory rates (except those of the Pocahontas region) up another 7%—from the interim basis of 7% to 14%. Western-territory rates will also go up another 7%—from the interim basis of 5% to 12%.

Southern-territory rates will advance 4%—from the interim basis of 5% to 9%. Pocahontas-region rates, which got Eastern-territory's 7% interim increase, will rise only 2% more—to 9%. Interterritorial rates between Eastern and Western territories took 5% in the interim adjustment, and will now take 7% more for a total of 12%. Rates to and from Southern territory, which also took 5% in the interim adjustment, will now take 4% more for a total of 9%.

First exception is that applying to class rates, where the total increase (including interim advances) is fixed uniformly at 12%—within all territories and interterritorially. Also fixed uniformly, at 9%, are the authorized increases on grain and grain products, livestock, meats and packinghouse products, lard substitutes and vegetable oil shortenings.

The present authorization as to coal permits the increase on that commodity to be brought up to 15 cents per ton, except that the overall increase on coal for export will be 10 cents per ton, and increases on the rail portions of some rail-water movements will be 7 and 8 cents per ton. The increase on lignite will be 7 cents a ton.

Holddowns (maximum limits on the percentage increases) will become: 7 cents per 100 lb. on sugar; 9 cents per 100 lb. on lumber and articles taking lumber rates; 10 cents per 100 lb. on building woodwork and millwork; 11 cents per 100 lb. on fresh and frozen fruits and vegetables and canned or preserved food products; 12 cents per 100 lb. on edible nuts; 40 cents per net ton on phosphate rock and salt; 75 cents per net ton on potash.

While increases were authorized for accessorial services generally, none was authorized in charges for refrigeration and other protective services. As to port rates, the commission included them in the general authorization but said they should be adjusted as soon as possible to restore differentials. In the latter connection, it set a deadline of November 25, having noted complaints of port interests who alleged that such readjustments have been unduly delayed in the past.

Water-carrier parties to the case were authorized to make increases like those approved for the railroads. Approved for freight forwarders were increases (including their interim advances) of 11% in Eastern territory, 7% in Southern territory and 9% in Western territory and interterritorially.

The commission's decision was embodied in a 104-page report. It included a separate concurring expression from Commissioners Minor and Walrath; and it noted the concurrence of Commissioner Hutchinson and the fact that Commissioner McPherson, being absent, did not participate. There was no dissent.

Addressing themselves first to the rate-of-return issue, Commissioners Minor and Walrath said they would go further than the majority's conclusion that the commission was not required to grant increases on that basis. They would hold that "there is no authority in law for that approach."

Also, they found validity in contentions to the effect that the railroads are reaching the point of diminishing returns in their general-increase cases. They added:

"Users of transportation service today demand and are entitled to the best service at the lowest rates consistent with such service. If public transportation fails to meet this demand, the increased efficiency and flexible performance of modern motor equipment encourages users to become carriers. The railroads should lead in offering the optimum in service and rates if they are to retain their position as the core of the public transportation system—and must do so, in our opinion, if ultimately they are to improve their rates of return. Whether they do so is essentially up to them."

The cooperating committee of state commissioners which participated in the case also filed a separate expression. They would have held the overall increases to 12% in the Eastern district, 10% in the Western district and interterritorially between the East and West, 8% in the Southern and Pocahontas regions and interterritorially between those regions and other territories.

(Continued on page 46)

Will This Raise Lead to Another?

Another general rate rise request for the Class I roads, perhaps before the end of the year, seemed in the cards following the Interstate Commerce Commission Ex Parte 206 decision.

In the words of Baltimore & Ohio President Howard E. Simpson, such an increase may well be "imperative."

In view of "increased costs of all types," he said last week, the railroads will be forced to go back to the commission for more "if we are to do all the things we should do in purchasing equipment and improving general overall railroad operations in order to provide improved service and to reduce costs."

Incomplete analysis of the effects of the ICC authorization enabled the B&O to estimate that the latest freight rate hike would mean an extra $20 million in revenues a year—or approximately $7 million for the rest of 1957.

The scope of the ICC decision, with its varying geographical and holddown stipulations left many railroads unprepared at the end of last week to evaluate the results of Ex Parte 206 fully.

There was restrained optimism in some quarters but in others the reaction to the

(Continued on page 36)

GN "hot shot" freight. Private line communications help keep it rolling.

How the Bell System helped Great Northern mechanize "lines west" car reporting

Ultra-modern signal tower at GN's Hillyard terminal, near Spokane. This is one of five "lines west" locations connected by Bell System teletypewriter channels.

Bell System engineers and Great Northern communication and traffic experts have designed a teletypewriter system for mechanized car reporting to handle the railway's growing business.

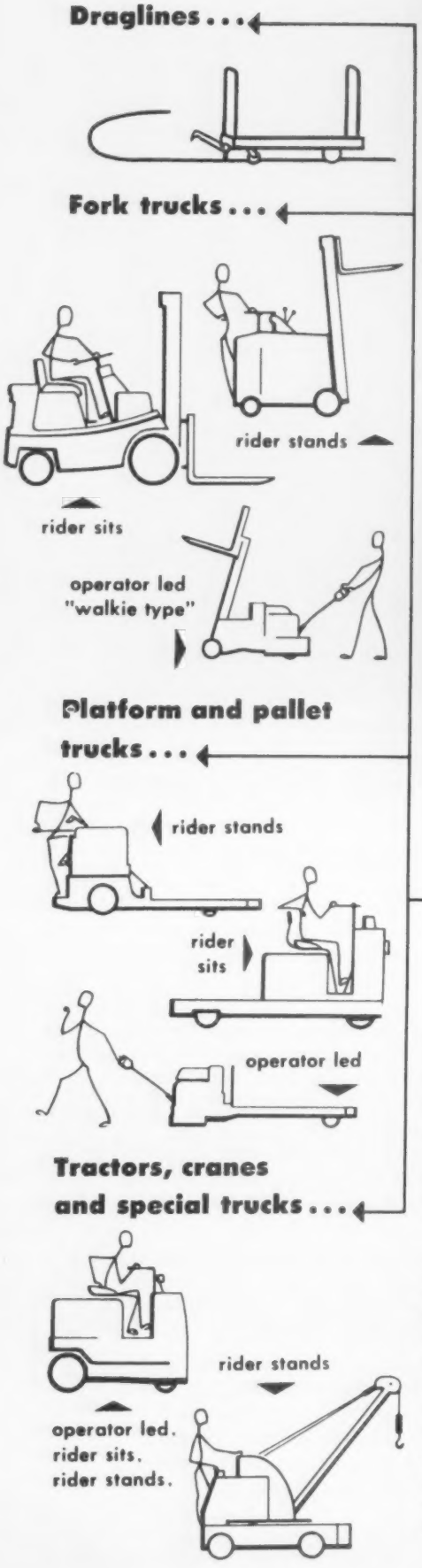
GN's five key western yards are separated by long stretches of rough terrain. The railway already had business machines for data processing in these yards. So the Bell System was asked to provide required communications.

Working in close co-operation with the GN staff, Bell System engineers planned and installed a private line teletypewriter service in three of the yards. This service, with the existing teletypewriter network, links the business machines at the five yards.

Your own communications problems will receive the same prompt and thorough attention. Call your Bell Telephone Company business office. A representative will study your needs. No obligation, of course.

BELL TELEPHONE SYSTEM

PRIVATE LINE TELEPHONE • PRIVATE LINE TELETYPEWRITER
DATA TRANSMISSION SYSTEMS • CHANNELS FOR: REMOTE METERING AND CONTROL • TELEPHOTOGRAPH • CLOSED CIRCUIT TV



Mechanized Handling:

By the time the Christmas mail rush is under way, the nation's railroads should be seeing the first rays of a new electronic light shining on some long-time materials-handling problems.

At Philadelphia—where, as at many places, mail will accumulate in small mountains—an electronic package sorting system will be operating in the Pennsylvania's 30th Street Station.

As parcels and sacks move along a belt, a man will read the addresses and punch a coded "destination" for each into a keyboard. Farther down the belt, where nine or more men normally would pick off the packages intended for their stations, automatic take-offs will do the job, thanks to an electronic "memory.' This device stores the destination codes until each parcel moves along to the proper position. Manual reading, marking, and then re-reading and "picking-off" will be a thing of the past.

This package sorting system, a development of Stewart-Warner Electronics, plus a good many other electronic and mechanical marvels now taking form, may well change much of the character of rail transportation in the future. For more and more, as the economics of dieselization, cost-reducing and service-speeding classification yards and the like are absorbed, the attention of efficiency-minded railroaders is turning to the broad field of materials handling as one which promises huge savings.

Indeed, even in the most advanced manufacturing industries where "automation" is an everyday concept, the cost of moving materials can run as high as 30% of the total cost of the finished product. Experts have called the field of materials handling, in which time, labor and space can be saved by mechanized transportation, the last great area for important savings.

And if that's true in a business which

(*Continued on page 14*)

MAIL SACKS move from incoming cars by belt across sloping table to "pigeonholes" within easy reach at Chicago's Union Station.

◄**DRAGLINE** at Burlington's Cicero, Ill., freight house circulates platform trucks to speed movement of LCL.

OPERATOR-LED platform truck speeds handling of sacked goods. Next step possible here: elimination of manual stacking.

Key to Big Savings

UNIT LOAD CAR: One shipper loaded 25 tons of packaged goods in 30 minutes against 12 man-hours in standard car.

LIFT TRUCKS abound in railroad materials-handling operations. These, in cold-storage cave, have electric drive.

"GOLF CART" finds use in shops, here speeds filters between cleaning machine and diesels in Union Pacific's Council Bluffs service center.

(Continued from page 12)

combines movement of materials with sometimes frequent pauses for "working" the materials into finished products, it should hold even more true for railroads. For railroads, by and large, perform nothing but *movement* of materials—during which each minute's delay, each additional handling by expensive manpower, is just that much less gross revenue carried through to net.

Half-Way to Goal

One observer puts it this way: "Railroads are nothing but gigantic materials-handlers. Transportation, with a limited number of accessories, is all they've got to sell." And the current feeling, both inside the industry and out, seems to be that the railroads have gone perhaps a little past half way in reaching the full efficiency possible with mechanized handling of material.

Whether or not the railroads can mechanize handling to the extent realized in many manufacturing processes is hard to say. Probably they can't, since in freight service they're expected to handle shipments which are anything but standardized in form, weight and destination.

Yet considerable opportunity for progress remains. Establishment of industrial engineering departments and the application of operations research techniques are a preview of what's ahead—although many railroaders would prefer to do these jobs without the fancy names. Each new freighthouse, car shop and passenger station probably shows today the signs that a materials-handling expert was around before the blueprints were approved.

Today's freight train ranks supreme as a materials-handler—in bulk. Last year, U.S. railroads established a new performance record of 26,119 net ton-miles per train-hour at an average revenue per ton-mile (1.38 cents) which would hardly interest other forms of transportation. Moving freight in trainload lots isn't the problem.

Nor is classifying the train's "units" the bottleneck it used to be. Each new gravity yard and modernized flat yard is a step toward reducing terminal delay—although few railroads think they're done all they can along this line.

Passenger Business, Too

Rather, it's in collecting the packages, sacks, boxes, crates and bundles which go into freight cars that the greatest avenue of improvement lies ahead. The Interstate Commerce Commission regards the cost of handling small shipments as a major railroad problem. And the efforts to which many a cost-conscious road has gone to do something about less-than-carload freight is a pretty good indication of its feeling that bending over to pick up the small pieces is breaking its back.

Likewise, many people expect considerable materials-handling development yet in the passenger and head-end fields. Palletized mail shipments or collapsible baskets which create unit loads of mail are not new, of course, yet much sack-by-sack handling still takes place—even at terminals where the volume is tremendous.

Nor is it exactly a fresh idea—but it is untried—that a passenger could leave his suitcase in the concourse and be carried down to the train on a moving sidewalk while his luggage, palletized according to car, is whisked along and deposited by a lift truck through the car side into baggage racks without being handled through the vestibule.

But passengers, baggage, mail and LCL simply won't submit to the type of handling that has put railroads far to the front in the mechanized movement of bulk commodities. A steady stream of solid coal trains moving from mine to dock is a classic example of efficient materials handling.

Men with shovels could, if need be, perform the jobs done today by rotary car dumpers, bucket conveyors, belts and other bulk handlers of coal and ores. But the economy couldn't afford materials handling like this. And the search is on for ways to apply the principle of the conveyor belt found in these bulk movements to the transportation of comparatively tiny LCL shipments.

The search is an active one. For example, two major western lines have attacked the freighthouse problem at Chicago with a vengeance. On the Santa Fe at Corwith and the Burlington at Cicero, mammoth mechanized LCL houses are in operation.

The other side of the railroad materials-handling coin shows a picture of somewhat different character: assembling the pieces which make up a railroad's equipment and physical plant. Here, in shops and storehouses where operations are more similar to manufacturing and warehousing processes, the railroads can use materials-handling techniques found in factories and warehouses.

The Chicago & Northwestern's new car shop at Clinton, Iowa, provides a good example. Parts and assemblies are stored in a long paved area adjacent to one end of the shop, beneath a traveling crane. When needed, the crane can deliver material directly into the shop with minimum handling. Lumber used in car construction comes bundled in unit loads.

Equipment for Any Function

There are well over 300 devices on the market in the category of mechanized materials-handling equipment. Specialized freight cars, piggyback equipment, containers, etc.—considering the nature of railroads—can be added to the list. There's

enough equipment, one sales engineer commented recently, to permit railroads to think first of the function they want performed, and then expect to find in the catalog what will best do the job.

In a sense, anything functioning with greater efficiency or less manpower in moving objects could be considered materials-handling equipment. Casters, for instance, qualify—and they come in such a variety of sizes and capacities that directories are published as aids to their proper use. Cranes, likewise, handle material of far greater weight than workmen could carry. In shops today nearly all the working area is within reach of an overhead crane, a post-mounted winch, or perhaps a simple hoist to lift small parts.

Most railroaders, in thinking of materials handling, think perhaps of tractors, fork-lift trucks, burden carriers and the great family of other self-propelled vehicles which abound in passenger and freight terminals. The field is hotly competitive; each new development spawns another, and products of improved design and new capabilities hit the market with comforting regularity.

Right now, materials-handlers are engaged in what promises to be a continuing three-way debate over truck motive power. Which is best, they argue, gasoline, electricity or propane? Conditions, of course, vary; several freighthouses have shifted from gasoline to battery-powered trucks; some, too, have elected to stand pat.

Maintenance set-ups, the size of the house and length of the average haul are among the conditions to be considered.

Propane and liquified petroleum gases in general are gaining some acceptance, but not without objection. Gasoline fanciers contend that engines designed solely to burn LPG are rare, that the fuel is ticklish to handle, and more dangerous than gasoline, and that leaks are harder to detect.

On the other hand, the Lackawanna, for one, is using propane at its Hoboken (N.J.) piers in twenty of its 34 lift trucks. Reportedly there is a little saving in fuel costs (over gasoline) and a lot in maintenance. Lubricating oil is good for 3,000 hours instead of 200, the Lackawanna says; filters need changing every 3,000 hours instead of 100. Spark plugs last three times as long, and general engine overhauls come every 18 months insead of once a year.

Dragline: A High-Volume Tool

A number of railroads in recent years have turned to dragline conveyors to speed the handling of LCL freight in volume. Here again, the idea is not new, but its growing application to railroad uses promises, many think, to solve a good many problems.

Essentially, a dragline is an endless chain conveyor either overhead or in the floor to which four-wheeled trucks are attached as they are filled. They are detached at their destination, beside the outgoing delivery van or the freight car door, when the chain brings them around to that point.

Dragline proponents expect at least a 20% increase in efficiency when a conveyor is installed. Some think that if packaged materials are generally moved in one direction for 200 feet or more, a dragline is justified. Cited as benefits are the smooth, regular flow of material, considerably easier housekeeping because the movement is confined to distinct channels, and a reduction in manual handling of the shipment.

Modern Communications

A corollary benefit from draglines is the accompanying modernized approach to freight-house communications. Freight checking and routing to destination is centralized, with one checker in communication with perhaps five freight-handling crews by means of portable talk-back speakers.

Dragline movement of LCL is in for some significant improvements. Apparatus much like that which will handle mail on the Pennsy at Philadelphia may some day automatically shunt freight trucks from one dragline system to another. And not too far off is a method by which the trucks can be kicked off the dragline at the proper destination. A "picker" won't have to take the truck off the line and shove it to the dock by hand. It will, in effect, come to him. Binary code devices will do this.

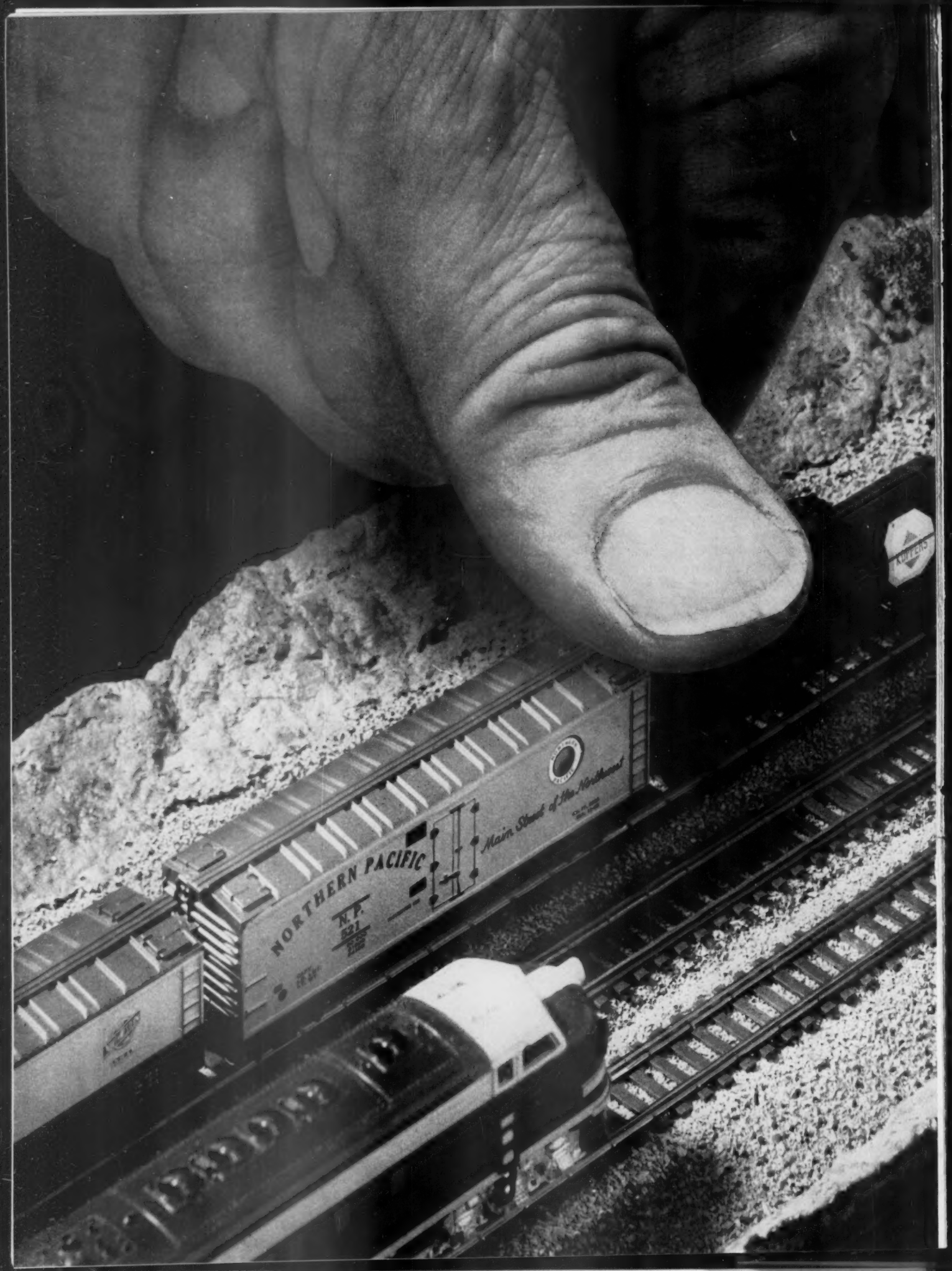
Keep It Moving!

So the ultimate in modern materials handling methods applicable to railroads is far from being reached. New products, techniques and ideas crop up all the time. More and more, the awareness is growing that just as a CTC installation or a gravity classification yard is a piece of physical property designed primarily to move freight, a freighthouse, shop or storehouse must be designed to continue the flow without interruption if it is to best do its job.

But materials-handling equipment suppliers, by and large, are inclined to raise this finger of warning: The railroads' motor-carrier competitors, who thrive largely on smaller shipments, are well ahead in the race toward ultimate mechanization.

Materials movement, by mechanical means, is the watchword in a day when unnecessary manual labor is railroading's most expensive luxury.

CRANEWAY looms above stored car parts at C&NW's new Clinton shop. Crane (here not yet in place) moves right through shop wall.


NORTHERN PACIFIC
N.P.
Main Street of the Northwest

How to keep an entire railroad under your thumb

LITERALLY, THIS IS POSSIBLE. It takes only a thumb—with an occasional assist from a cooperative forefinger—to flip the switches and push the buttons of a Centralized Traffic Control panel.

Equip a complete railroad with C.T.C. and movement of trains anywhere on the road can be directed with a few simple flicks of the finger.

Can the railroads afford C.T.C.? Frankly, *a modern railroad can't afford to be without it.* In the first place, it will pay for itself in three or four years by reducing operating expenses. It will virtually double the capacity of existing trackage—or permit salvaging hundreds of miles of rails where it eliminates the need for multiple track. Property taxes are lowered. Maintenance is reduced.

Over-all service is speeded up considerably. Schedules are more reliable. And C.T.C. tells the dispatcher at the control panel where every train in his system is located at all times. C.T.C.-equipped railroads have already reported return on the investment averaging 15 to 30 per cent a year.

In the field of push-button science for railroads, Union Switch & Signal's record of achievement has been outstanding. In addition to C.T.C., development of VELAC* Fully-Automatic Classification Yard System has given the railroads an efficient tool for speeding freight movement and reducing operating costs. Our engineers are ready to help with your problems at any time.

**Trademark*

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE, PENNSYLVANIA

NEW YORK . . . . . PITTSBURGH . . . . . CHICAGO . . . . . SAN FRANCISCO

THE ROAD now has a fleet of grading units which are engaged in widening cuts and fills and in placing the side ditches at greater distances from the tracks.

EXCEPT for the "A," "X" and short rails, all new rail on the RF&P is welded into continuous lengths. At the end of 1957, the railroad will have 45.5 track miles of welded rail.

After a long hard pull, the RF&P is now enjoying the full benefits from rehabilitation of its fixed properties and reorganization of its maintenance forces. Maintenance costs are going down. In 1954, they were $1 million (22%) under 1953; in 1955, $360,000 (10%) below 1954; in 1956, $440,000 (14%) below 1955.

How the RF&P Got Better Track at

The Richmond, Fredericksburg & Potomac has sharply reduced its maintenance-of-way forces since January 1955. At that time they numbered 529 men, including 14 supervisory officers. Of this total 474 men were engaged on the track and 55 for B&B work. In March 1957, the scheduled M/W force numbered only 301 men, including 12 supervisory officers. Of this total 247 were engaged in track work and 54 in B&B work.

The result is that for 1956, the road's maintenance-of-way ratio dropped below 10 per cent for the first time. Yet, in spite of the economies effected, the general condition of the road is considered better than before.

In the middle forties the railroad was maintained by 18 section crews on the main line and two more in Potomac yard. This force, plus extra gangs for rail laying, ballasting and tie renewals, was responsible for the upkeep of approximately 250 miles of main and branch-line tracks and about 214 miles of side track.

Although this force may seem adequate, it was seriously hampered in its work. Because the RF&P serves as a 110-mile bridge line between railroads operating into Washington, D. C., from the north and those operating south of Richmond, Va., trains were operating at a rate of one every 13 or 14 minutes during World War II. This alone caused delays to the section crews in getting to and from their work by motor car, and allowed little time between trains to work efficiently on the track.

Also, there was very little track machinery on the road at that time. Rail was laid mostly by hand and ballasting and timbering were carried out with the help only of a crawler-type air compressor and hand-held tampers. In addition, work was hampered by a lack of materials and a shortage of experienced men. As a result, the tracks were in a run-down condition, with train speeds on some sections north of Richmond being restricted to 40 mph.

Now It's Different

Today, the track is in excellent condition, free of slow orders and with trains operating at 80 mph. While accomplishing this feat the railroad has been able to effect a large reduction in the size of its work force.

The road now has only five sections on the main track and two crews in Potomac yard. Each section is furnished with a stake-body truck, a wheeled tractor-compressor, tamping guns and the usual hand tools. They also can draw upon other power equipment when needed.

In addition to the section forces, other permanent track forces consist of a tie-renewal-and-ballasting gang, a work-train gang and a ditching gang. In general, the tie-renewal-and-ballasting gang renews ties and surfaces the track, but it also forms a nucleus for the approximately 100-man gang required when relaying rail. The work-train gang unloads and distributes ballast for the surfacing gang, assists the ditching gang, and helps the section crews on work too extensive for the latter to carry out alone.

J. C. DeJarnette, chief engineer, explained that this reorganization of forces could not have been carried out except for several factors. For instance, by using trucks the section crews can drive out to their work at any time. The construction of access roads now enables 90 per cent of the mileage to be reached by truck.

Since the road is now fully dieselized, fewer but longer trains are operated, affording more continuous work periods on the track. The general track condition is now so good that emergency work is practically eliminated.

"Another important factor," said Mr. DeJarnette, "is the fine cooperation we get from the operating department. Without that, our plan of reorganization wouldn't work. Whenever we lay rail or ballast the track, trains are detoured around the gangs, and we have two-directional signaling to assist in handling train movements at these points.

"We also have an understanding with the operating department in the event of

CROSSBUCK signs are given added visibility day or night by Scotchlite reflectorized sheeting.

SECTION crews are furnished with stake-body trucks to permit them to go to and from work regardless of the frequency of trains. This particular truck is used by a welding crew and carries a new electric arc welder.

Less Cost

severe snowstorms. We do not have the force to keep all turnouts open. To make the most effective use of our available force, the operating department has indicated certain interlockings which must be kept open for straight-line movements; the others are to be opened after the storm has abated. This eliminates the need for keeping all crossovers cleaned of snow and permits us to allocate our forces to the best advantage during the emergency."

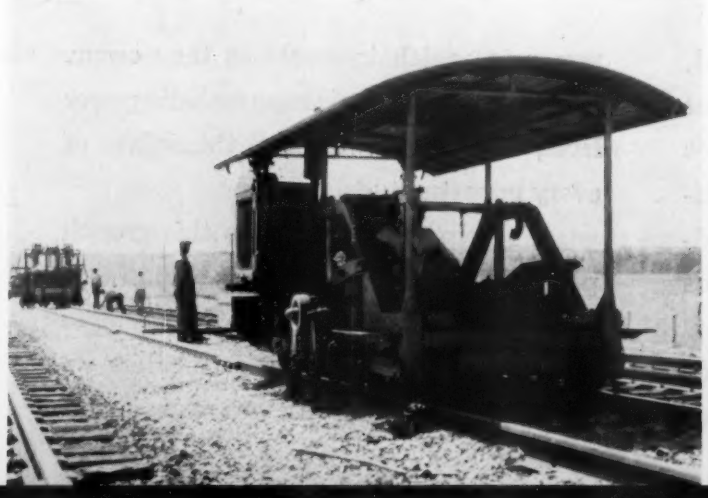
Handling Out-of-Face Work

The RF&P's M/W force is stabilized and no extra gangs are employed. The tie-

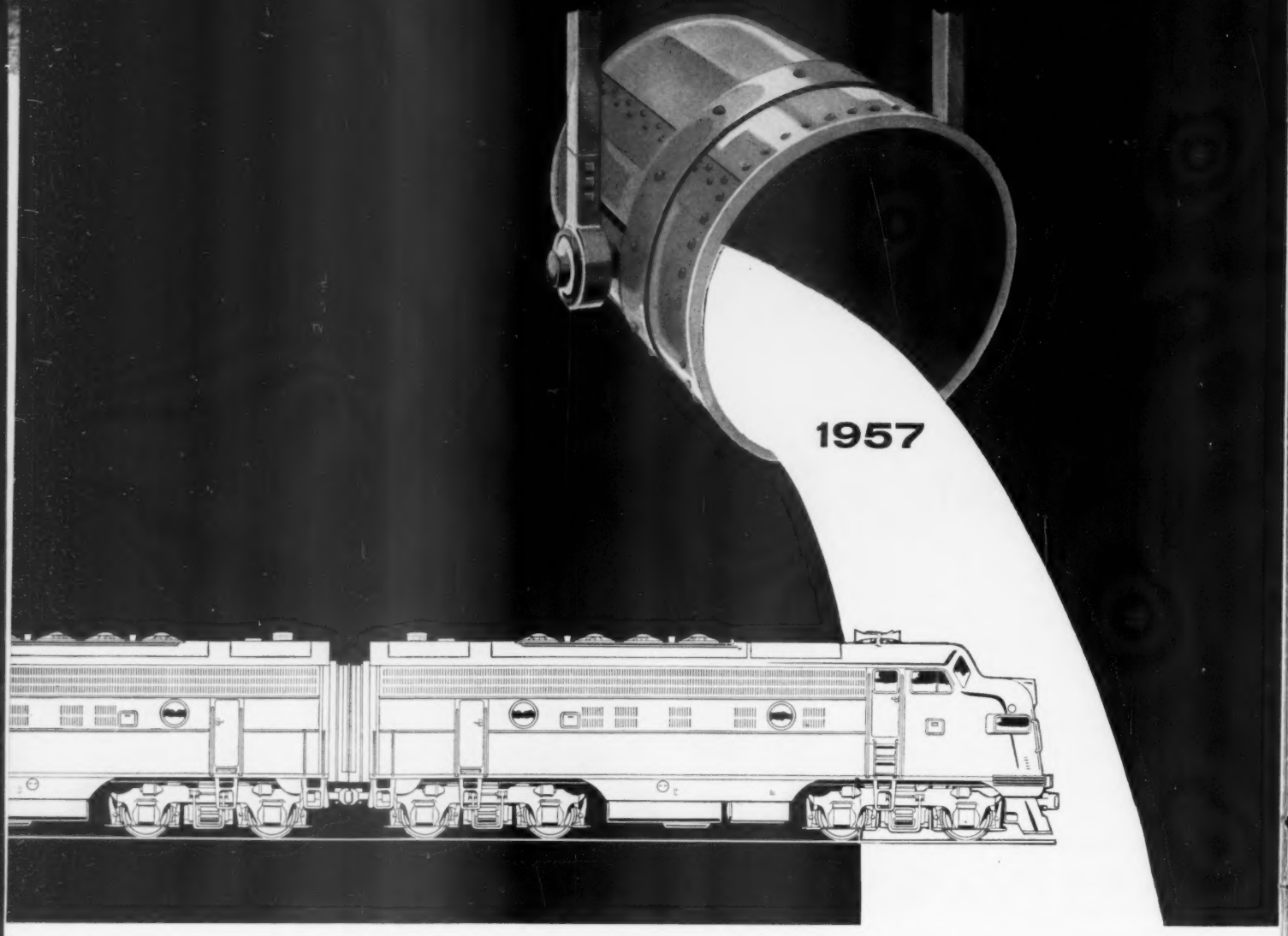
(Continued on page 22)

MOST of the bridge structures on the RF&P are of the permanent type and the road has a large number of culverts made of stone or concrete.

OUT-OF-FACE surfacing is done mechanically. The McWilliams tie tamper (right, below) is an integral part of the ballasting gang. The Matisa tamper (left) is sometimes used with the ballasting gang, sometimes with the section forces for ordinary surfacing.



Forecast: Steel production to



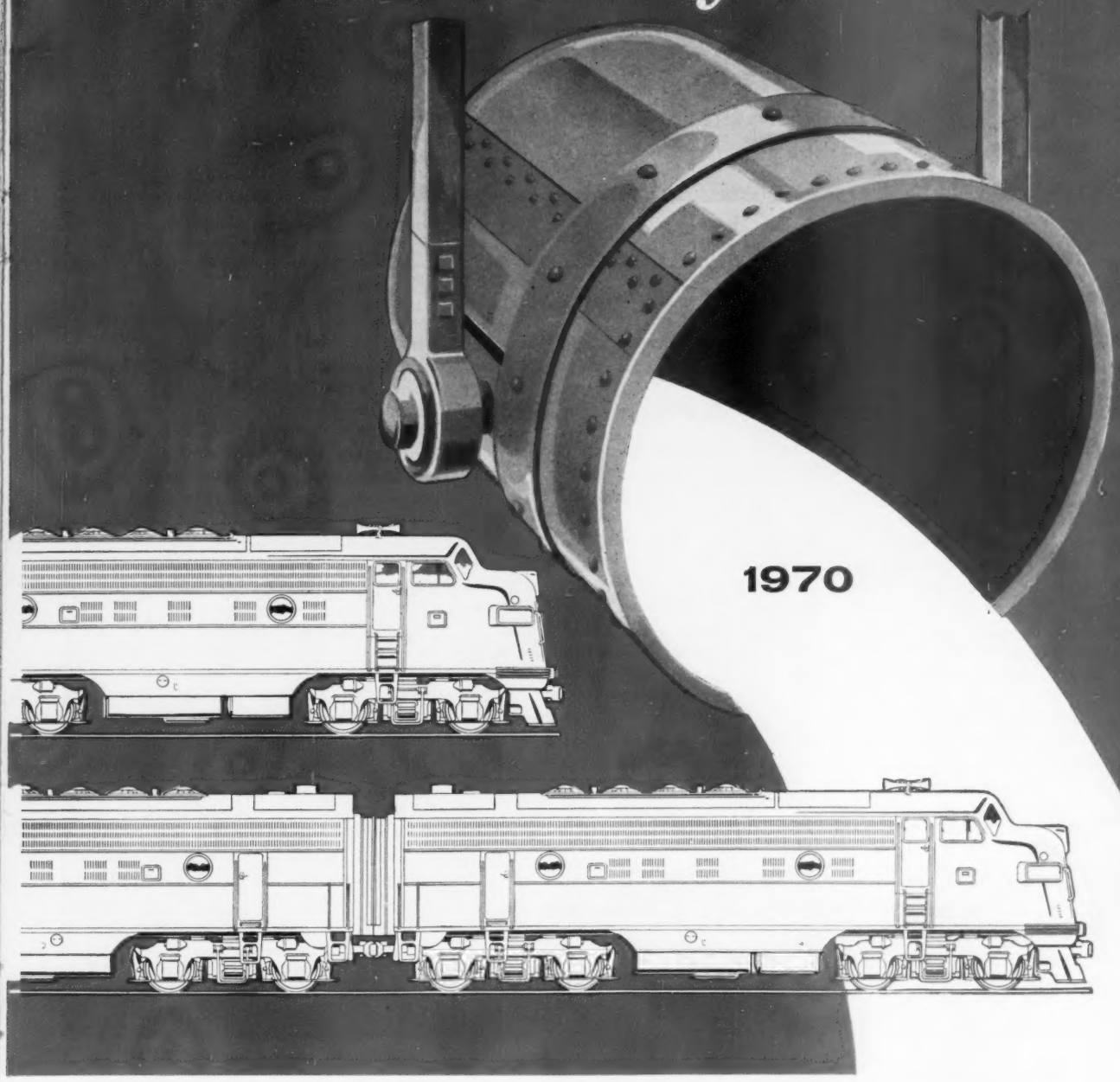
Can your diesels keep pace

Anticipating the growth years ahead, many railroads are planning motive power requirements today for increased traffic not only in steel, but aluminum, cement, chemicals, foodstuffs and most other basic products—all expected to place heavy demands on tomorrow's rail facilities.

Their reasoning is sound: plans made now will avoid costly delays later—provide power to match increases as they occur. Moreover, by maintaining a realistic power level, these roads will avail themselves of every opportunity to grow.

To help railroads realize this growth potential, Electro-Motive is expanding manufacturing facilities at La Grange over forty per cent. More than ever before we are prepared to plan with you realistic pro-

*increase 50% by 1970**



with the job ahead?

grams of power acquisition to give you power as you need it.

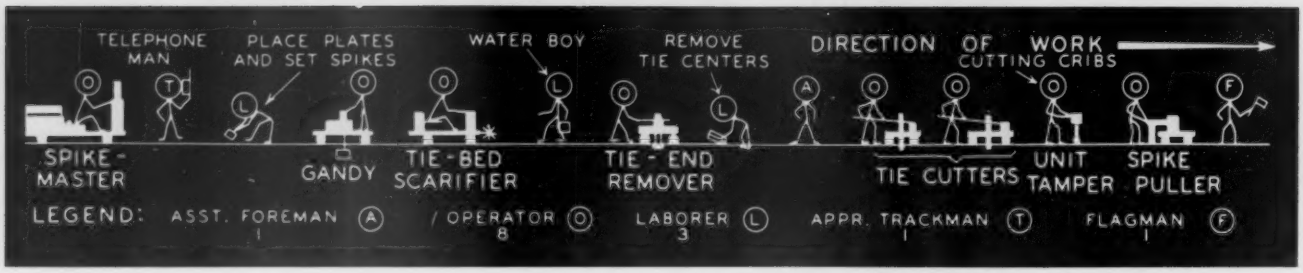
Thus, whether you plan new locomotives or modernization of older units, what better way to keep pace with the job ahead than through modern, dependable, economical General Motors Diesel locomotives.

* Increasing demand for steel in almost every product and industry is expected to boost production 50% over its present level by 1970.

GENERAL MOTORS LOCOMOTIVES

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS

La Grange, Illinois - Home of the Diesel locomotive
In Canada: General Motors Diesel, Ltd., London, Ontario



FAILED crossties, averaging 138 ties per mile, are installed about one week in advance of the ballasting gang by a mechanized tie gang. This unit is equipped with a Fairmont spike puller, a Racine unit tamper used for cutting out ballast, two Woolery tie cutters, a Woolery tie-end remover, a Fairmont tie-bed scarifier, a Nordberg Gandy and an RMC SpikeMaster.

(*Continued from page 19*)
renewal-and-ballasting gang handles the out-of-face tie renewals and surfacing. It comprises a 15-man tie unit and a 29-man surfacing unit. When rail is to be relaid, this gang is augmented by men drawn from the section crews.

The general tie condition on the RF&P is considered excellent. The road started installing all treated crossties in 1936 and this policy has paid off in present low tie renewals. In 1956, renewals averaged 47 per mile. "Of course," said Mr. DeJarnette, "where we work the track the number of renewals per mile is higher. But we are now at the bottom of our tie-renewal curve and there's no place for tie renewals to go but up."

Failed ties are renewed one week in advance of the ballasting unit. Where traffic is diverted, the tie unit will average 175 crossties renewed in a 6-hour on-track day. When working under traffic, the renewals average 80 per day.

Tamping 86 Miles a Year

No fork tamping has been done since 1953. About one-third of the tamping work is done by hand-held units powered by wheeled air compressors. The bulk of the tamping is done by a Matisa and a McWilliams tie tampers. For the last two years an average of 86 miles of track has been tamped. In addition to the production tampers mentioned, the ballasting unit is furnished a Kershaw ballast regulator, a Kershaw track broom and a Railway Track-work hydraulic track liner.

Except for the "A," "X" and short rails, all new rail used on the RF&P is welded into continuous lengths. At the present time the road has 36.5 track-miles of welded rail and the program for 1957 will add 9 track-miles more. Immediately after the rail is laid, it is tested by a Sperry Ultrasonic testing unit.

In 1955, the road acquired several earthmoving units which were employed in widening and benching the deeper cuts, moving the side ditches away from the track and deepening them, and in restoring embankment of eroded fills. The results proved so beneficial that the road procured additional grading units.

Grading Machine Fleet

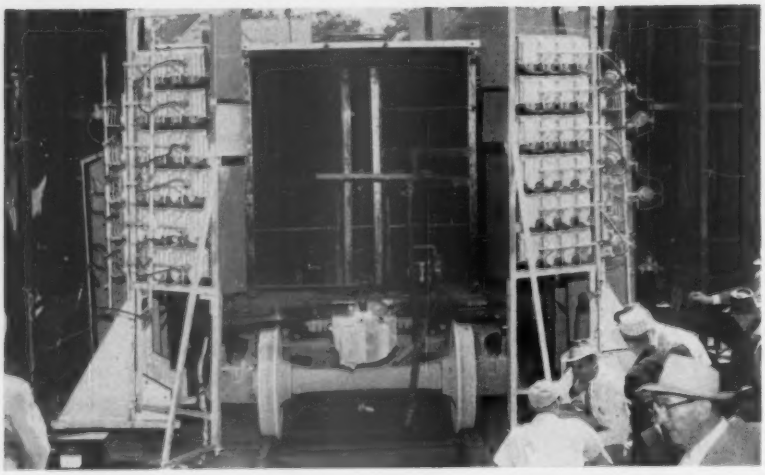
Presently, this fleet includes two Bucyrus-Erie Model 22-B crawler cranes, a Koehring No. 205 crawler crane, 3 Caterpillar DW-15 tractors and No. 15 scrapers, 2 Caterpillar D-8 bulldozers, 2 Caterpillar D-4 tractors and No. 40 scrapers, 1 Caterpillar No. 112 motor grader, 1 GMC 2½-ton dump truck and a 600-gal water trailer. The cranes also have magnets, ¾-yd clamshell and dragline buckets and rail tongs to make them fully versatile.

One of the crawler cranes is employed with the ditching gang which is engaged not only in right-of-way ditching work but also in constructing French drains. Another crane is employed for various work in Potomac yard.

Vegetation control on the RF&P includes both the growing and killing of plants. After benching a deep cut, the road plants grass seed as standard practice to reduce erosion. This seed is a mixture of various grasses as formulated by the state highway department and local seed suppliers for obtaining the best results for immediate as well as lasting growth.

On its track section, the road employs the R. H. Bogle Company under contract for its weed-spraying service. This is done for three consecutive years, after which spot spraying usually is sufficient for the next year.

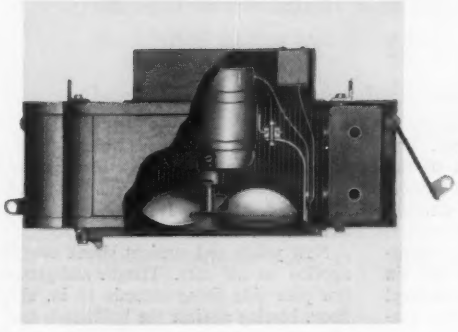
For weed control on its right of way, the road uses two Fordson tractors, one of which has a sickle-bar attachment and the other a trailer rotary mower.



Infrared Used in Ore Thaw Test

Duluth, Missabe & Iron Range demonstration of infrared heaters to thaw artificially frozen ore cars drew mining and railroad representatives to Cleveland. Car loaded with 80 tons of iron ore was frozen to depth of about eight inches on all sides, top and bottom. Heating unit shown above thawed ore and permitted dumping in a matter of minutes. Precision Industries Division of Hupp Corporation supplied heater, which develops 1,650 deg F.

VAPOR OVERHEAD HEATER



Cross section showing variable speed fan within rectangular, fined coil.

Of course it's warm inside that car—it has effective Vapor Overhead Heating.

Mounted on the ceiling and only 8½ inches deep, the Vapor Overhead has a variable speed, propeller fan which pulls up 1000 cfm of air and wafts it outward through a 25 inch rectangle of steam heated, finned tubing.

This delivers up to 50,000 btu/hour to the sides and ends of the car with a *Draft Free* spill-down of heated air over the entire car area.

Shutters on all four sides regulate heat distribution to suit varying needs, and the fan can be used for draft-free air circulation during summer months.

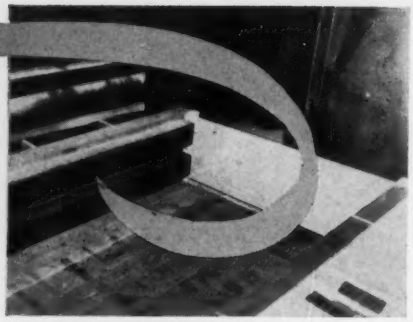
Installation is simple—just a single steam line—shunt wound motor for single unit operation and series wound motors for a single control if two units are desired—available in any voltage used aboard trains. Vapor Overheat Heaters prevent frost on doors, keep personnel comfortable and more efficient all year round. Provides more baggage space by reducing side wall coils.

Designed especially for mail, baggage, and express cars. *Ask for Bulletin No. 581.*

VAPOR HEATING CORPORATION

80 East Jackson Boulevard, Chicago 4, Illinois

OFFICES IN PRINCIPAL CITIES



▲ **RUBBER BUMPERS** are mounted on steel bulkheads in end of car.

◄ **PACKAGED TIN PLATE** rides snugly. Strapping makes floating load.

New Car 'Saves' Tin Plate Traffic

Problem

Two years ago, the railroads were in danger of losing tin plate traffic to the motor carriers because of a critical competitive situation and an undesirable in-transit loss and damage record.

The EJ&E management recognized there were certain equipment, blocking and bracing problems with tin plate shipments. Studies were undertaken to develop satisfactory bracing methods and to explore the equipment situation.

Solution

Following several months study of tin plate loading behavior, numerous yard tests conducted under controlled conditions and exhaustive experimental road tests, the EJ&E came up with a specially equipped box car and a floating unit load.

Today, tin plate is shipped in palletized fiber board packages, wrapped on the inside with moisture resistant paper. The packages are combined into a unitized load. By use of a rubber bumper at each end of the car, plus mechanical brakemen plates, burst packages and damage to ends of the tin plates have been greatly reduced, and the cost of bracing and blocking cut 60 per cent.

Here's How It Was Done

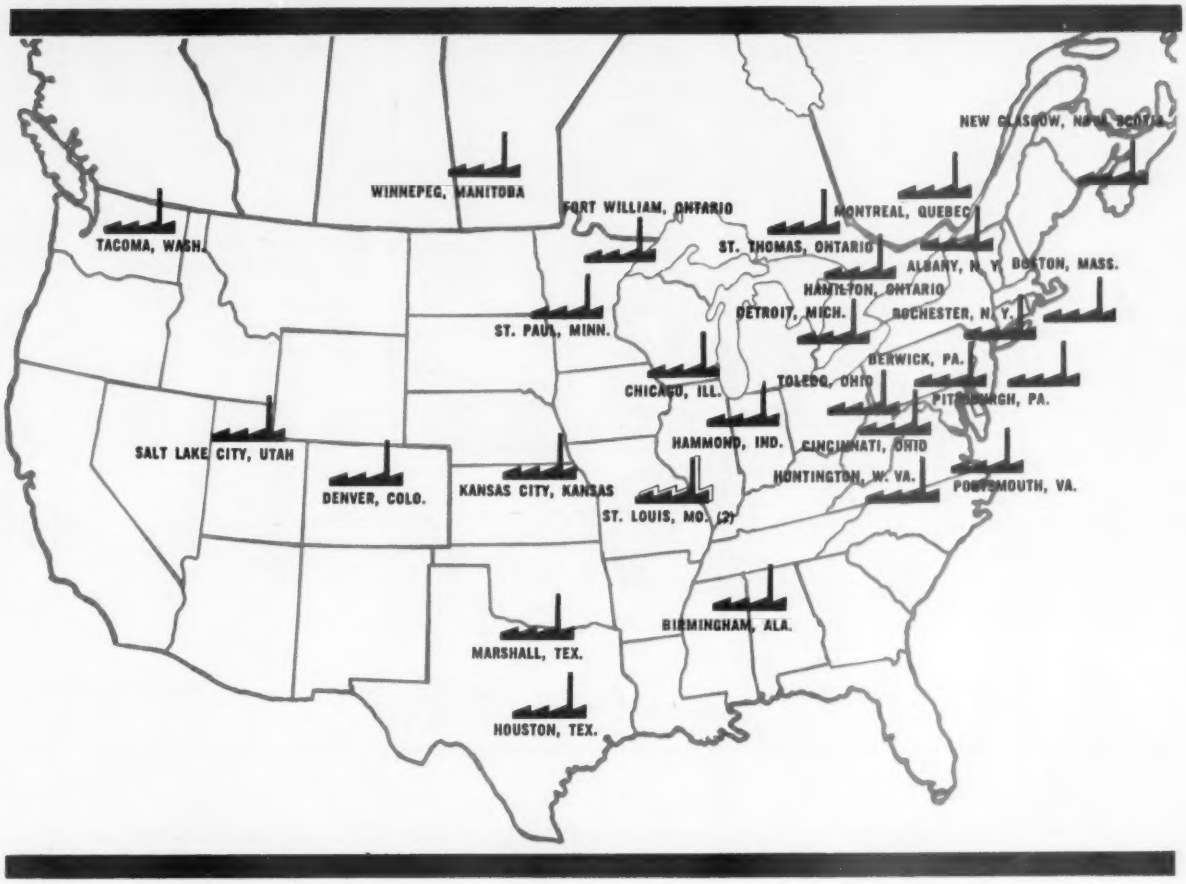
Some 500 50-ton box cars, built in 1948, are now going through the East Joliet shops of the EJ&E under a planned heavy repair program. Of these cars 250 will be equipped to handle sheared and coiled palletized tin plate. To date, more than 200 cars are in this service, assigned to the Chicago switching district and Milwaukee area.

Steel bulkheads, 18 in. high by 9 ft 7½ in. wide, are placed in each end of the car. Each bulkhead is braced by six ¾-in. by 7½-in. by 17¼-in. gussets attached to the car's end sill. Fastened to each bulkhead are two 3¼-in. by 4½-in. by 9-ft rubber bumpers. The bulkheads are 11 in. from the ends of the car. They provide a surface to load against and a cushion for the load without damage to car.

Several other special features were necessary because palletized packaged and coil tin plate have concentrated weight. General Steel Castings one-piece combination bolster, center plate and draft sill end castings were applied for greater strength and dissipation of shocks. The flooring is 2¼-in. tongue-and-groove oak (½ in. thicker than previous flooring). Steel floor plates which cover a 10 ft length at the doorway were installed to facilitate use of heavier loading equipment. Rubber draft gear is being used to further cushion the shock.

New yokes and straight shank couplers are applied to all cars. Tongue-and-groove yellow pine side lining extends 18 in. above the floor, butting against the bulkheads and edges of rubber bumpers, providing protection to side of unit loads. To avert condensation, the interior of the cars is painted with Milar smooth cement.

Quick, low-cost chilled car wheel delivery from a plant on or near your line



An important fact about chilled car wheels made by Association members is that they are *accessible*. You can get fast delivery on standard, high quality wheels from the nearest of 28 plants in the United States and Canada.

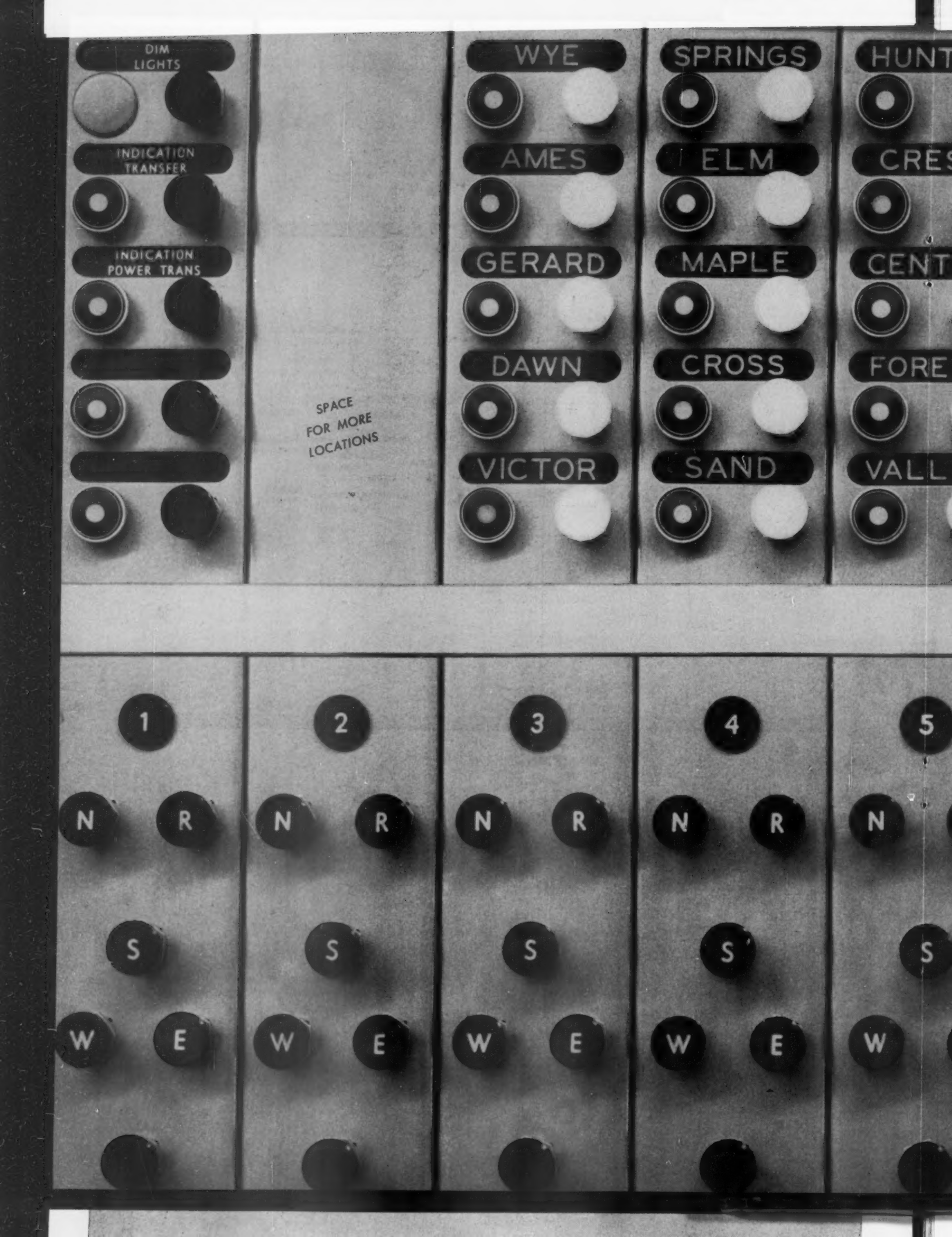
Low first cost and favorable exchange rates make the Association wheel an outstanding value for freight car service. Additional economy results from the lower inventories possible with quick deliveries from a nearby plant.

in good supply
available locally
short-haul delivery
reduced inventory
low first cost
low exchange cost
increased ton mileage
high safety standards
plant inspection
easier shop handling

RAILWAY WHEEL ASSOCIATION

(Formerly Association of Manufacturers of Chilled Car Wheels)

445 North Sacramento Boulevard, Chicago 12, Ill. • Albany Car Wheel Co. ACF Industries • Griffin Wheel Co. • Marshall Car Wheel & Foundry Co. Pullman-Standard Car Mfg. Co. • Railroad Products Div., American Brake Shoe Co. • Canada Iron Foundries, Ltd. • Canadian Car & Foundry Co., Ltd.


DIM LIGHTS
INDICATION TRANSFER
INDICATION POWER TRANS
SPACE FOR MORE LOCATIONS
WYE
AMES
GERARD
DAWN
VICTOR
SPRINGS
ELM
MAPLE
CROSS
SAND
HUNT
CRES
CENT
FORE
VALL
1
2
3
4
5
N
R
S
W
E

GRS TRAFFIC MASTER

Here, in actual size, are complete controls for 104 track miles of multiple-track cTc, including 119 signals, 105 switch machines, 17 snow melter locations and 18 maintainer calls. In addition, there is complete facility for setting up fleeting moves, and for blocking switches and signals as desired. Indications are displayed on a separate high-visibility illuminated track diagram.

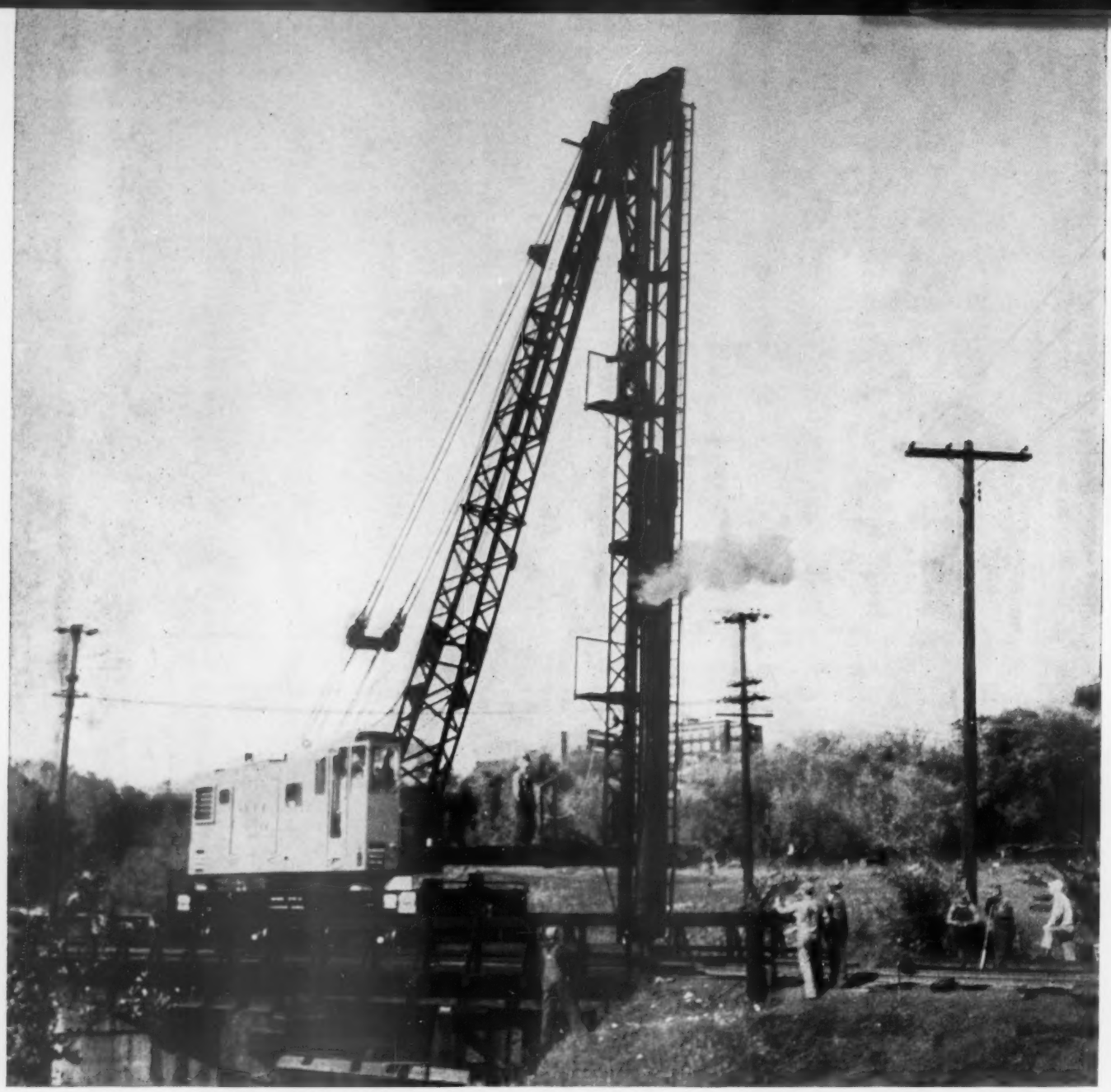
Used to maximum capacity, a panel this size could handle nearly twice as many locations as shown—with up to nine switches and signals at each location.

Ask your GRS district office for complete information.

GENERAL RAILWAY SIGNAL CO

ROCHESTER 2, NEW YORK

NEW YORK 17 • CHICAGO 1 • ST. LOUIS 1



PILE DRIVERS GO DIESEL ON THE NP

American DiesELectric meets demand for power and speed

Northern Pacific Railroad's dieselization program now includes completely diesel powered pile drivers! An American 40-ton DiesELectric* Locomotive Crane, equipped with a diesel pile hammer gives the NP a compact, self-propelled rig. It's a fast moving unit that pulls its own work cars. While its primary duty will be pile driving, the big machine can be converted for hook or bucket work in a matter of hours.

Smooth power and the ability to set up and move fast were NP requirements for this machine because it must serve an entire district. On the job the American hauls a 220-ton trailing load at speeds up to 14 mph —top speed is 28 mph! A big time saving feature is the American designed pile lead that automatically folds as the boom is lowered—unfolds as it's raised. For side batter, an air powered motor swings the leads to either side.

Demands for smooth, efficient power, speed and precise control in locomotive cranes are met by American DiesELectrics. Progressive railroads capitalize on the outstanding production ability, overall economy and lower maintenance costs of American DiesELectric Locomotive Cranes.

Actual cost and operating records of roads using DiesELectrics prove that they can "work off" their cost completely in five years or less! Write direct for detailed information about American's complete line of locomotive cranes available in capacities to 80-tons.

**Registered Trademark*

AMERICAN HOIST
and Derrick Company

St. Paul 7, Minnesota

BARBER STABILIZED TRUCKS

are easier to service

STANDARD CAR TRUCK COMPANY, 332 S. Michigan Ave., Chicago 4, Illinois.
In Canada: Consolidated Equipment Co., Ltd., Montreal 2.

for a surge of power

. . . or steady flow

You can depend on **gould** *batteries*

America's Finest!
GOULD
KATHANODE BATTERIES
for Diesel Starting

Maximum power and long, trouble-free battery life, under *all* operating conditions, are yours with every Gould Battery you buy. And, to insure that you fully realize these benefits, Gould employs a staff of full-time application engineers. These men help you set-up your battery maintenance shop, help you establish sound preventive maintenance procedures, make routine calls to check on conditions, and instruct your new personnel in correct procedures. Do you see how you can increase battery life with this service? Why not talk it over with your local Gould representative. He's listed in the yellow pages under "Batteries." Gould-National Batteries, Inc., Trenton 7, N. J.

More Power to you from Gould

Always Use Gould-National Automobile and Truck Batteries

© 1957 Gould-National Batteries, Inc.

a three way combination to greater savings...

CYLINDER LINER — 9" ALCO

Cast from GUN IRON for longest wear and superior resistance to water erosion resulting in lowest cost per cylinder mile. HUNT-SPILLER cylinder liners are available either unplated or with customer's choice of chrome plating.

WATER JACKET

Cast from GUN IRON for longest service and superior resistance to water erosion. Close grained, consistently uniform metal structure of GUN IRON helps to maintain critical liner to jacket and jacket to block fits resulting in maximum operating economy.

HS DOUBLE SEAL RINGS

Statically cast to GUN IRON specifications . . . . . close grained and having a high graphite carbon content. It is the graphitic carbon flakes that *ease the ring* over dry spots on the cylinder wall. They absorb lubricating oil to be fed back to the surface as needed and assist the material to rapidly form a work hardened skin. This mirror like surface on the ring minimizes friction and gives both ring and cylinder longer life.

HUNT-SPILLER

REPLACEMENT PARTS

The Diesel Engine parts shown here are all cast from HUNT-SPILLER GUN IRON . . . . . a dense cast iron that is melted under rigid metallurgical control. Its properties, found in no other metal, provide long life and highest resistance to wear. Specify all three HUNT-SPILLER replacement parts, and attain all of these money saving advantages:

- **Highest resistance to wear**
- **Superior resistance to water erosion**
- **Reduced lubricating oil consumption**
- **Consistently high metal quality**

Write for Bulletin H-1 "Gun Iron, Your Key to Lower Cost"

HUNT-SPILLER GUN IRON
HSGI
SINCE 1810
HUNT-SPILLER
MANUFACTURING CORPORATION
383 DORCHESTER AVENUE · BOSTON 27, MASSACHUSETTS
CANADIAN REPRESENTATIVE
Joseph Robb & Co., Ltd., 4050 Namur St., Montreal 16, P.Q.
EXPORT AGENTS
International Rwy. Supply Co., 30 Church St., New York 7, N.Y.

HOW ARE THEY DOING? ...ON THE NORFOLK & WESTERN

Thriving in Tough Times

But President Smith, with a wary eye on rising costs, says adequate freight rates are a 'must'

R. H. Smith

Lincoln-tall, white-thatched R.H. Smith of the Norfolk & Western purses his lips against the fingertips of his palmed hands, peering through rimless glasses as a visitor asks if additional freight rate hikes will drive traffic off the railroads. He drops the lids of his eyes shut and the deep lines in his heavily tanned face soften. He balances his long frame perilously on a free-pivoting desk chair tipped at an astonishing angle.

Suddenly, he swings forward to his feet, strides around his massive desk and across the office. He comes back riffling the pages of the AAR's statistical "green book" and reads off a column of pertinent figures. Where railroad ton-mile charges haven't increased by 50% since 1940, wages and other costs to the railroads have tripled. Other-industry prices have soared apace.

"We've done a pretty good job of holding down charges," Mr. Smith maintains. Wrinkling his features, he adds a bit sourly that "they've probably been held down too much."

Subsidized Competition

The 69-year-old N&W chief admits that if the ICC granted the railroads the whole freight rate increase they sought it probably would cost his road some highly competitive traffic. The road is in an intense traffic contest with barges on the Ohio river.

This brings him to a favorite battle issue: unequal competition between over-regulated railroads and subsidized waterways operators. He's not pessimistic about the situation, although he reports a growing trend toward rail-barge coal movements in some areas that have traditionally had all-rail routes.

Mr. Smith's enthusiasm rises noticeably then as he tells what a railroad needs to meet competition when it's encountered. What he wants is just "a little more freedom" to adjust his rates when the competition pinches.

This doesn't, however, detract from his position that the railroads' need for the entire requested rate rise is acute.

Anything less than the full increase sought from the ICC, he warns, is going to mean that the N&W (and, presumably, other roads) must delay modernization and expansion plans now under way. Thwarted will be their desire to provide better facilities and equipment; frustrated will be their ambition to fit themselves to grow with the national economy.

47 Years on the N&W

Robert H. Smith has been president of the Norfolk & Western since 1946. With the N&W since he first entered railroading in the summer of 1910 while he was at Princeton, he's seen the road prosper in good times and bad, seen its passenger business rise spectacularly during the war, slump dishearteningly in recent years.

Just recently he's seen N&W earnings rise to record heights; its coal business rebound as part of the industrial comeback story of the decade; the road's freight car fleet swell to record numbers. But, he notes with concern, he has also had to turn to equipment trust financing.

"Borrowing money" for such purposes has obviously been a somewhat distasteful, almost embarrassing pill for this veteran railroader to down, and he takes pains to explain "how come?"

"There are two reasons," he points out, marking the items with throws of long, strong fingers: Earnings haven't increased "nearly in proportion" to the decrease in the purchasing power of the dollar; and, the price of a coal car (the N&W's big expansion item) is three times as much as it was at the start of the war.

Nevertheless, because of the rich opportunities in coal haulage "we are going ahead rather liberally with the acquisition of new freight cars."

Prosperity and Potential

Commenting that on top of the higher freight car costs the railroad must also pay the price of "tight money," Mr. Smith laments that "prosperity just doesn't exist in the railroad industry."

Growth and potential, though, are definitely within the industry's grasp, he believes.

In this connection, he notes that "we have been very vigorous in our efforts to increase industrialization in our territory." He claims for this locale "the finest natural conditions in the country," by way of good workers, climate, living conditions, and supplies of coal, limestone and water, plus good geographical location and transportation facilities.

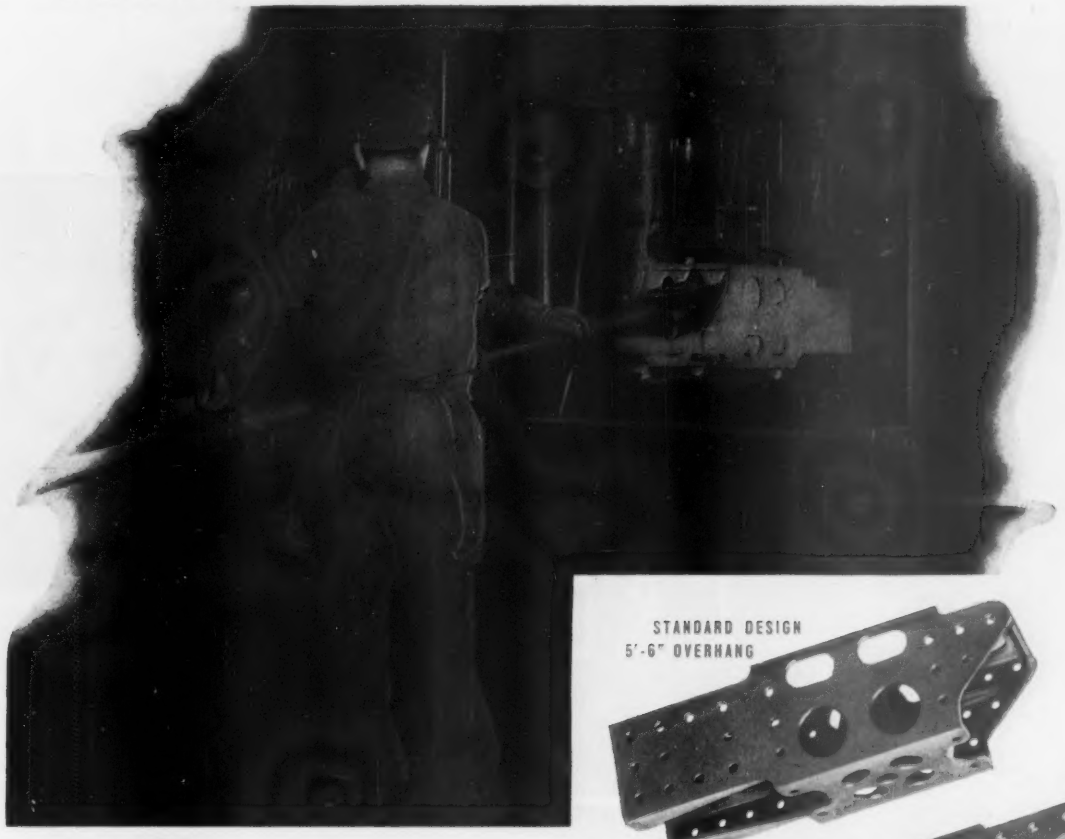
"We've been right successful in selling that information," Mr. Smith smiles, drawing an endorsing nod from Executive Vice-President S. T. Saunders, who filled in the rare detail in the N&W picture that wasn't at his boss' fingertips.

Scratching his neck in good-humored irritation, Mr. Smith answered a question that railroads still attract capable college graduates because of the industry's potential. "But we have to give 'em a little more compensation than we used to. A VPI graduate doesn't think much of starting as an apprentice."

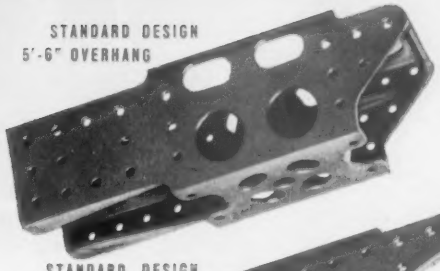
Still, he's apparently happy with the results of the N&W training program for budding officers who are jumped systematically across departmental lines to give them a whole-road background in the ripening process.

(*Continued on page 47*)

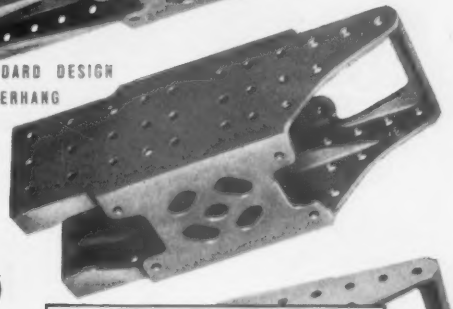
Check the **ECONOMICAL ADVANTAGES!**



STANDARD DESIGN
5'-6" OVERHANG



STANDARD DESIGN
5'-0" OVERHANG



INTEGRAL CAST BODY CENTER PLATE
(EITHER DESIGN)

Buckeye

HOT DIE PRESSED
BOLSTER CENTER FILLERS

One or Two Piece Design . . For Riveted or Slot Welded Application

- ✓ NO MACHINING REQUIRED
- ✓ CLOSE TOLERANCES
- ✓ MINIMUM WEIGHT
- ✓ MAXIMUM STRENGTH
- ✓ ALL FIT SURFACES SQUARE
- ✓ ALL RIVET HOLES DRILLED

FOR COMPLETE INFORMATION
ON STANDARD OR SPECIAL DESIGNS . . CALL or WRITE

Refer Adv. No. 11871

The Buckeye Steel Castings Co.

RPI MEMBER

★ COLUMBUS, O
★ NEW YORK, N.Y.
★ CHICAGO, ILL.
★ ST. PAUL, MINN.

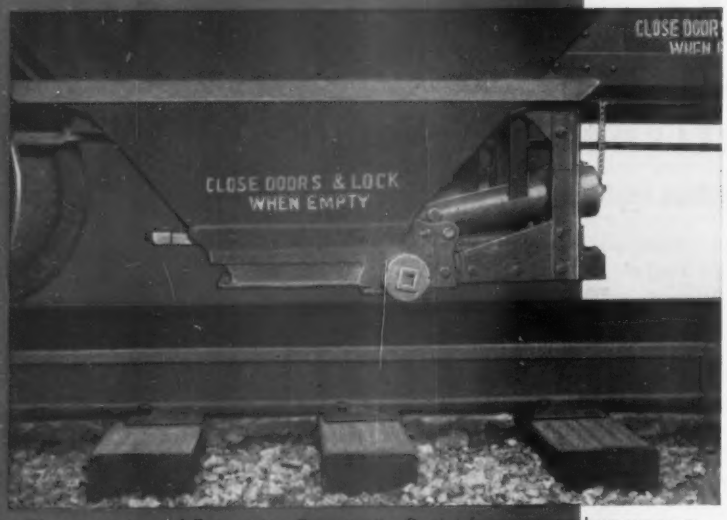
ANOTHER FIRST by Enterprise

a new concept in covered hopper car unloading

ENTERPRISE Pneumatic Outlet

(Patents applied for)

70-ton covered hopper car with Enterprise Pneumatic Outlets
in combination with Enterprise Cast Steel Frames and Gates



Close-up view of Enterprise Pneumatic Outlet for covered hopper cars

To the long list of successful firsts since 1905—ballast cars, gondola cars, hopper cars, ore cars, covered hopper cars—ENTERPRISE now adds the Pneumatic Outlet for covered hopper cars.

This *newly* developed valve in combination with ENTERPRISE Cast Steel Frame and Gate makes covered hopper cars more versatile in a choice of two unloading systems—the conventional gravity flow bottom discharge, and by *pneumatic conveyor*. The car is unloaded, by *one man* using either system.

Responding to a challenge, the *Pneumatic Valve* was developed for sanitation, and for easy unloading of dry, granular, or powdered commodities. It can be applied to any existing covered hopper car equipped with ENTERPRISE Discharge Gates as well as new ENTERPRISE equipped covered hopper cars.

Full Particulars upon Request

ENTERPRISE RAILWAY EQUIPMENT COMPANY

59 E. Van Buren Street · Chicago 5, Illinois

7153

New Products Report

Tape Supply Reel

Accumulated rolls of common language tape can be fed into transmitters, computers or other business machines without rewinding in any direction with a new tape supply reel. It can handle 5, 6, 7 or 8-channel tape widths. The unit, not powered, is a slave device adjusting automatically to the requirements of the equipment the tape is being fed into. A lightweight reel pan with a centered cone rides on nylon bearings to minimize friction and drag. *Whiteford Laboratory, Dept. RA, 420 Market st., San Francisco 11* •

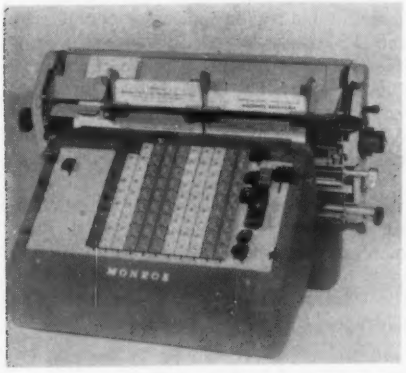
Tape Recorder

For car checking or other portable dictation requirements the Dictet portable tape recorder is a battery-operated instrument weighing less than three pounds. About the size of a candid camera, it provides a full hour's recording time on reusable magnetic tape, and accompanies the traveler in a trim, shoulder-slung leather case. Tapes are magazine-loaded and are mailable in special cartons for transcription or playback at their destination. *Dictaphone Corporation, Dept. RA, 420 Lexington ave., New York 17* •

Heavy-Duty Lift Truck

Model FT-100 10,000-lb capacity lift truck, is powered by a 230-cu in. engine, for diesel, gasoline or LP gas fuel. A new roller type "extra lift" mast gives more lift without increasing the overall lowered height of the unit, according to the manufacturer.

The truck has a two-speed, constant mesh transmission. Power shift, power steering and a no-spin differential are available as optional equipment. *Allis-Chalmers Manufacturing Company, Tractor Group, Dept. RA, Milwaukee* •

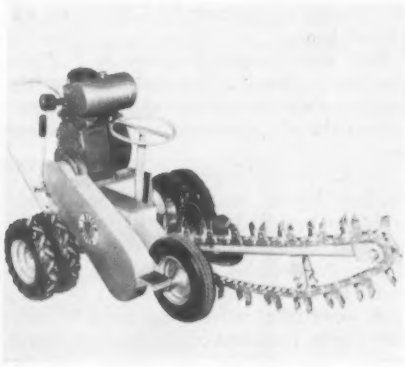


Simplified Accounting Machine

Redesigned and restyled, this three-register accounting machine is said to offer several time-saving features including simplified error correction and elimination of the need for transferring balances to new statements in a separate operation at the start of each month. On an original statement ledger accounts receivable application, the machine is able to transfer balances to the statement the first time an account is activated monthly. *Monroe Calculating Machine Company, Dept. RA, Orange, N. J.* •

Portable Telephone Set

A lightweight, completely portable telephone communications package for emergency use is self-contained, requiring no batteries or outside power supply. The unit consists of two sound-powered handsets, each with a 4-ft neoprene-covered retractile-type cable with locking-type receptacles, 250 ft of two-conductor heavy-duty neoprene-covered cable, and a special reel. This instrument provides for carrying on a conversation while the cable is paid out. *Wheeler Insulated Wire Company, Dept. RA, Waterbury 20, Conn.* •



Mobile Power Trencher

The model M trencher is completely mobile with three forward digging speeds and reverse, plus road speeds up to 5 mph. In usual digging conditions it will trench at speeds of 1½ to 6 ft per min. It has a trailer hitch for towing at speeds up to 25 mph. Trenching widths and depths available are; 3 in. wide up to 48 in. deep, 4 in. wide up to 36 in. deep and 6 in. wide up to 30 in. deep. The digging chains are quickly interchangeable on the job. Weight is 500 lb. *Charles Machine Works, Dept. RA, Perry, Okla.* •

Will This Raise Lead to Another?

(Continued from page 10)

ICC decision was marked disappointment. For the most part, though, traffic men were withholding specific judgements pending complete studies.

As one traffic officer pointed out, the railroads got, generally, 12% of a requested 22% rate boost. Assuming that the request was based on true need, he went on, the partial authorization did not give the railroads all they had to get. A request for the balance, therefor, would appear justified, he concluded.

To a few railroad representatives contacted, the ICC action was "fairly good." To the majority, apparently, it was "inadequate."

A standout exception to all opinion was H. A. DeButts, president of the Southern, who opposed the application in the first place. He was reported as having said at San Francisco last week that the railroads would harm themselves if they went back to the commission for another increase-authorization now.

J. K. Dent, traffic vice-president of the Louisville & Nashville, was among those executives who feel "the increases authorized will prove inadequate." But Mr. Dent said this evaluation was given before a full study could be made.

J. A. Fisher, president of the Reading, commented that it is "premature at this time to state what additional steps may have to be taken to further increase revenues."

He estimated the increase will mean about $5.3 million in annual revenues for the Reading—in the face of wage raises of 13-cents an hour or $4,420,000 on an annual basis.

New York Central President A. E. Perlman, noting the climbing costs of materials and equipment in addition to higher wages, termed the ICC decision "very disappointing."

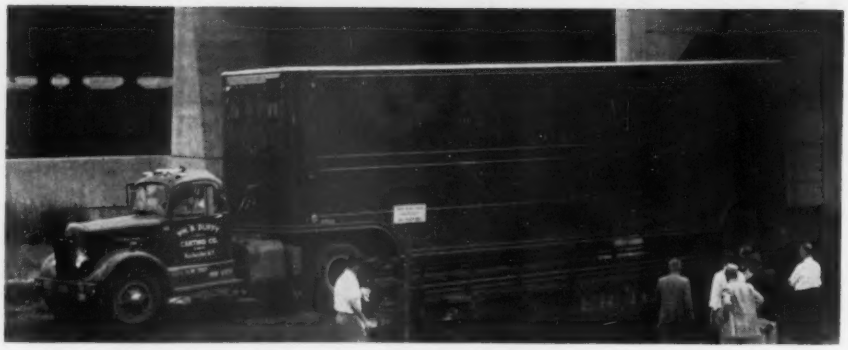
W. K. Tate, vice-president, freight traffic, New Haven, also expressed something less than heel-clicking enthusiasm but did say that "while the increase won't make things comfortable, at least the sheriff won't be at the door."

A word of caution came from W. Arthur Grotz, president of the Western Maryland: "The question of another rate increase soon should be most carefully weighed from the standpoint of possible diversion of freight." He estimated the increase just granted would boost WM revenues about $2.5 million a year.

One western road spokesman figured it would be possible to salvage about 5% of the 7% increase as applied to his company's traffic—this reflecting the experience with other recent railroad freight rate boosts.

"It will mean more money," a comment which seemed to sum it up for most roads held, "but it's not what we wanted nor what we expected."

Moreover, it's felt, it means another go-round with the ICC.



First 'TOFC' from Rochester Moves Cross-Country

First of five truck-mounted telephone exchanges is loaded aboard Erie piggyback flat car at Rochester for move to west coast. Mobile phone units were assembled at Stromberg-Carlson plant at Rochester for use as supplementary equipment if phones have been knocked out by disasters. Shipments, which are not true TOFC traffic, continue through August. First trailer moved Erie-Elgin, Joliet & Eastern-Chicago & North Western-Union Pacific-Southern Pacific to San Leandro, Cal.

Progress in Piggyback *this week*

Plan I for Canada

The Canadian National and the Canadian Pacific, both advocates of all-rail (Plan II) piggyback service since 1952, are going into the common carrier TOFC operations the first week in September.

They and eight truck companies announced jointly that the railroads will now haul trailers on flat cars between Montreal and Toronto under "for hire" (Plan I) billing.

The tie-up with the truckers was viewed as a major transportation development in Canada. Heretofor, the two biggest Canadian roads had moved only their own rail-billed trailers in piggyback service.

C&NW Stretches to Iowa

The Chicago & North Western has expanded its common carrier piggyback service to include operations between Chicago and Council Bluffs and Sioux City, Iowa.

The service will be in cooperation with 14 major common carrier truckers operating over the east-west route. C&NW entered the common carrier piggyback field in June with a Chicago-Twin Cities operation (Railway Age, June 10, p. 17).

Terminal operations will be conducted at C&NW's 40th street yard in Chicago and at the road's yards at the two Iowa points. Loading and unloading will be handled by Rail-Trailer Company as agent for the truckers and as coordinator in development of the service between the truckers and the railroad.

Strick Gets NYC Order

The New York Central and its truck-operating subsidiary, New York Central Transport, have placed orders for more than $8,000,000 of special equipment for use in the Central's "Flexi-Van" version of piggyback.

Strick Trailers of Philadelphia, a subsidiary of Fruehauf Trailer Company, was awarded the production contracts—including a $3,000,000 order to build 150 specially-designed flat cars with twin turntables for loading lightweight wheel-less trailer vans.

Strick will also build 900 aluminum demountable trailer bodies (or containers) and 150 highway wheel-and-axle assemblies ("bogies") used to transport the containers over the road before or after movement via rail flat car.

Deliveries are scheduled to begin this fall, acording to Leo L. Mellam, president of Central Transport.

Service—which will be all-rail billed in keeping with NYC President A. E. Perlman's opposition to alliances with common carrier truckers—is to be inaugurated on the Central first between New York and Chicago.

DL&W Adds New Areas

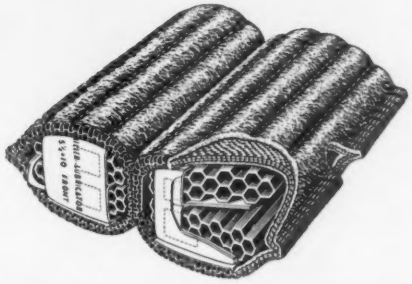
Lackawanna piggyback service was extended to the western New Jersey-Stroudsburg, Pa., area starting last week, the railroad has announced.

More than 1,400 extra stations and 60 large city areas are added to the DL&W TOFC territory. Trailers are to be loaded onto and removed from flat cars at a new ramp and supporting facilities at the Lackawanna's Port Morris, N.J. Overnight service to Buffalo and second-morning service to Chicago and St. Louis are scheduled with the extended operation.

Pick-up and delivery service will be provided by Servall Trucking and W. H. LaBar Freight Service.

FOR PROGRESSIVE RAILROADING

102,000 CARSETS TO DATE



MILLER CENTER-FEED PAD LUBRICATORS

NOW
MADE IN CANADA
TOO

FOR CANADIAN RAILROADS

The lubricator that can be applied or removed without jacking box in winter or summer.

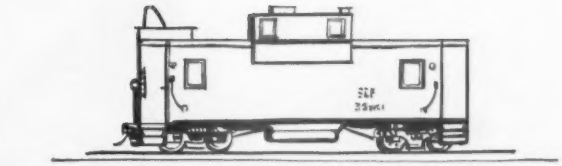
Any quantities. Life expectancy—6 years.

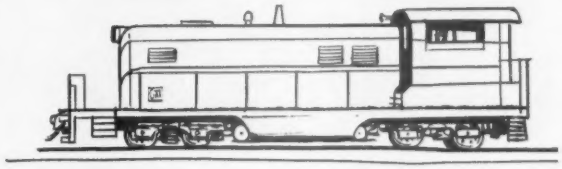
Lowest prices—F.O.B. Napanee, Ontario or Winona, Minn.

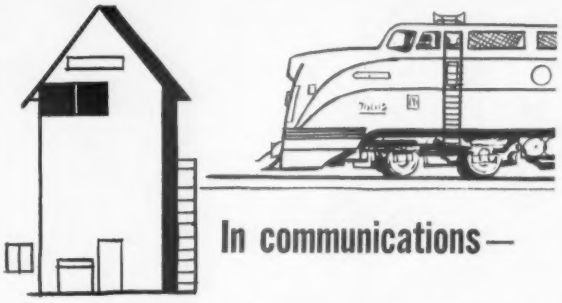
Immediate Delivery, Any Quantity

FROM BOTH PLANTS

MILLER LUBRICATOR CO.	NAPANEE IRON WORKS, LTD.
Winona, Minnesota	Napanee, Ontario and Montreal, Quebec, Canada



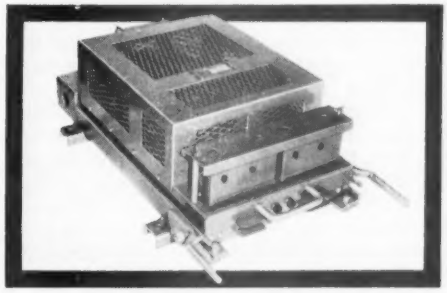




In communications—

Only independent AC power will let you standardize

Here's why: Cornell-Dubilier Inverters provide dependable 110-volt, 60-cycle power *wherever needed*, so that identical, low-cost, lightweight, AC-operated communications equipment may be used throughout the system . . . in yards, at wayside stations, on switchers, cabooses and engines. You get economical conversion to AC from any 12V., 32V., 64V., or 120V. D-C source! For complete technical data or engineering consultation, write Cornell-Dubilier Electric Corporation, Department RA-87, 2900 Columbia Avenue, Indianapolis, Indiana.



CORNELL-DUBILIER

VIBRATOR INVERTER

The railroad-proven radio power supply first choice of experienced railroad men.

TO SQUEEZE MORE CARS THROUGH TERMINALS . . .

Rails Probe Snag-Slashing Plans

The Belt Railway of Chicago is launching a renewed, re-intensified attack on an old familiar problem—terminal delay.

Announcement of the move came in a brief statement that Charles L. Poole, BRC general superintendent since 1951, has been appointed assistant to the president and general manager. His assignment: To "spearhead the Belt Railway Company's program to expedite and coordinate with trunk lines the interchange and movement of traffic through Chicago via the Belt Railway Company of Chicago."

Mr. Poole brings to his new job 47 years' experience with the Belt as telegraph operator, trainmaster, superintendent and general superintendent. He brings with him also a conviction that the problem of terminal delay can be solved, or at least eased materially, with the cooperation of all railroads involved, trunk lines and intermediate carriers alike.

At about the same time, the Indiana Harbor Belt announced a staff reorganization in which Louis T. Schmidt, former superintendent of the IHB, was moved up to assistant to the vice-president and general manager of the Harbor Belt and Chicago Junction. Also included in the line-up changes were appointments of seven new train masters and creation of six new terminal trainmaster jobs.

The purpose of the reorganization, according to A. W. Laskoske, vice-president and general manager of the IHB&CJ: to provide "on the job supervision that will give the railroads' customers the best possible service."

Terminal delay is nothing new. Terminals grew as railroads grew; delay grew as terminals grew. The result is a situation forcing the railroad industry into a continuous battle to squeeze traffic faster through terminal areas. The problem is by no means unique to Chicago; but the Chicago terminal area, with its 37 railroads and almost 8,000 miles of track, is sort of a "laboratory" for the problem.

Terminal delay itself is probably no worse today than a few years ago but there are several factors which bring the problem into sharper focus now:

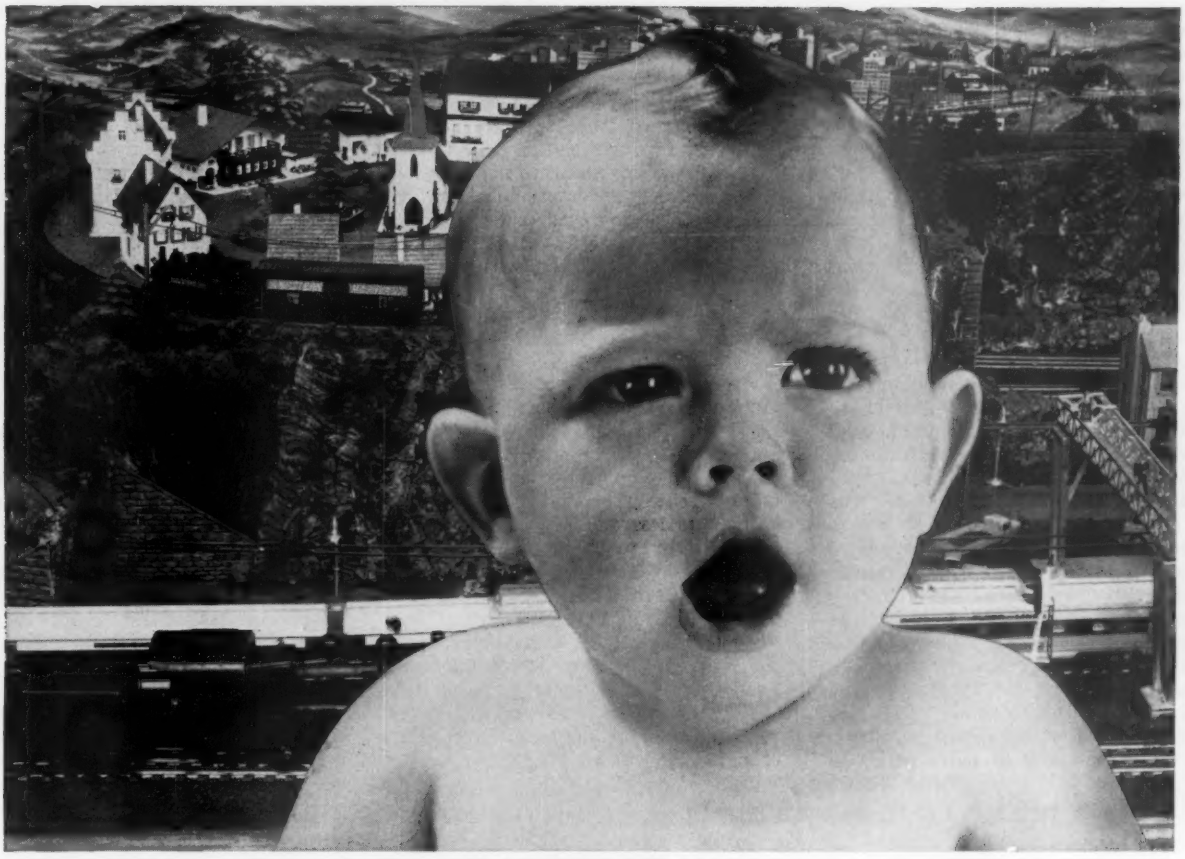
- Traffic increases projected for future years (including whatever benefit Chicago-area roads may get from the St. Lawrence Seaway;
- Direct interchange of cars, which has sprung up all over the district in the past five years, as line haul roads search around for means to speed traffic through the Gateway.

Traffic increases mean more cars moving into the terminal; more cars could easily mean more delay, unless action is taken in advance. Direct deliveries mean, in some cases, loss of traffic to intermediate lines; some railroad men hail direct moves as a blessing, others feel they may be a curse—either way, they represent a growing trend of trying to beat delay by avoiding the "middleman" carrier.

Terminal delay, traditionally, has been a product of many contributory causes. Two of the more important:

- Pre-switch time. A yard may be able to classify a 100-car train in a half-hour or so—but that speed is nullified if the train sits dead for several hours while clerks scale the mountain of classification paperwork.
- Missed connections. A good part of these can be attributed to timing difficulties, where the delivering road turns a

(Continued on page 40)



"You Mean Bird Self-Sealing Tie Pads Can Reduce My Cross Tie Costs 59%?"

Oh baby! That's a *real* saving. And it's as easy as ABC to prove for yourself:

A. The average installed cost of a new main line cross tie, including cost of original tie plus labor, is approximately $7.00*. With a normal life of 20 years, this amounts to 35¢ per year.

B. By sealing out destructive moisture and abrasive materials from under-plate and spike-hole areas, Bird Self-Sealing Tie Pads increase the life of the average tie by at least 15 years. At 35¢ per year, this saving amounts to $5.25.

C. The cost of obtaining this saving? About $1.12 for two five-ply 7¾" x 13" Bird Self-Sealing Tie Pads. *Net saving is $4.13 — or 59% of the installed cost of the original tie.*

Bird Self-Sealing Tie Pads are the *only* tie pads which have *proved* their durable and effective seal with the tie through years of in-track service. Want the whole story? Write to Bird Tie Pads, Department HRA. East Walpole, Massachusetts.

*These figures represent the most conservative minimum. If your costs are higher, savings are proportionately higher.

Bird Self-Sealing Tie Pads Are Recommended For:

Bridge Decks • Curves • Switch Timbers • Highway Grade Crossings and Other Paved Areas • Crossing Frogs • Insulating Joints • With Smaller Tie Plates • Pile Cutoffs • Through Station Platforms • Out-of-Face Installations in Rail-Laying Programs • Locations where tie life is short or replacement costs are high.

Buy the Best... **BIRD & SON inc.** Established 1795 *Buy BIRD*

Unretouched photograph of cross section of tie shows under-plate and spike-hole area after 10 years' protection by Bird Self-Sealing Tie Pads. Destructive moisture and abrasive materials could not penetrate the seal.

(Continued from page 38)
train over to the intermediate line too late for same-day outbound movements to the receiving roads involved.

There are railroad officials in the Chicago area who believe a solution to train dead time and scheduling mis-fires would go far toward eliminating delay.

Some of the "answers" they propose include: Use of a communications network —probably Teletype—to give receiving yards advance data on inbound trains. This would enable clerks to handle a large part of the pre-switch paperwork before train arrival.

Also centralization of data work concerned with interchange—an idea which may get fresh impetus in the near future. A central office, its backers agree, could provide a uniform record system for the terminal and permit the district's railroads to cut down on much of the present paperwork duplication.

Inter-line cooperation on scheduling—including the delivering carrier, the intermediate switching line and the receiving trunk line. One of the aims of such cooperation might be the elimination of "peaks," when intermediate lines are deluged by inbound cars, by spreading the load more evenly through the day.

Establishment of cutoff-type scheduling, similar to that used to move perishable freight through the terminal, for all freight.

More pre-classification of cars by the delivering road. If a railroad can block for direct delivery, one railroad official pointed out, it can block for an intermediate line "and make it possibe for us to do the job for them and expedite traffic."

Physical improvements to railroad properties. The BRC, for example, now has under study more automatic humping facilities at mammoth Clearing Yard, where some 5,000 cars are humped on an average day.

More deliveries and pulls daily by the trunk lines, with resulting speed-up in movement of cars.

An increase in revenue—maybe as much as 40-50% of present car charges—for the intermediate lines.

Meanwhile—the direct delivery trend continues to grow, although trunk line officials are not unanimous in their views on the moves. One traffic officer terms direct interchange the "only salvation" from present delay problems. Another, while admitting his road has expanded its direct moves, contends the intermediate lines would "do everybody a favor" by boosting service to a point where direct deliveries are less attractive an alternative.

It's hard to argue, however, with the results of some of the new direct interchanges. An eastern line and a western carrier set one up earlier this year with the announced aim of cutting some 24 to 36 hours off transit time through Chicago. An official of one of the roads recently told Railway Age the arrangement has worked out "fine . . . just as we had hoped."

In any renewed attempt to solve the terminal problem, much will depend on the degree of cooperation given speedup efforts by the line haul roads.

"We're not going to perform miracles," Mr. Poole says, "but we do think that with the cooperation of all concerned we can look to an improved service through the Chicago Gateway."

Other Chicago railroad men are a bit more skeptical. They hint that in some cases service improvements may bog down in cost-consciousness.

The element of inter-line cooperation, however, runs strongly through almost every suggested answer to the delay issue: No cooperation, no solution. As an officer of one terminal line phrased it: "Improvement won't come until everybody stops looking at the situation from the viewpoint of an individual road and starts looking at the overall picture." In other words, what's needed is less "surface" treatment of the ailment (mere placing of blame for delay) and more "deep therapy" (finding and correcting cause of delay).

Railroading After Hours with Jim Lyne

COLLEGE RAILROADERS—On the question raised by Walter H. Walker, Jr. (July 1 issue, p. 35)—whether there aren't a lot of good railroad men who deserve a chance to qualify as officers, in spite of their lack of a college degree—I have an answer from a friend of mine on the New York Central. His father was a successful railroad officer, without a college degree—who made sure that his son had the educational advantages he himself had missed. The son answers Mr. Walker's question somewhat like this:

"How about the railroader who has all the desirable academic qualifications and still is not outstandingly successful, who then is to blame? Regardless of educational qualifications, isn't the primary question the degree of ability and effort that the employee brings to his job? The greatest value of a college degree may lie in the self-confidence it instills—the belief that the other guy hasn't got an edge on you."

A systematic search for qualified supervisory personnel among the "enlisted men" (as practiced, for instance, by the B&O) is certainly all to the good. But there are so many non-college men, right now, who are advancing rapidly up the railroad ladder that there's mighty little evidence that lack of formal academic background is a serious handicap—provided the candidate has other and fundamentally more important qualifications. Besides, practically anybody who is unhappy because of a lack of formal education can readily remedy the deficiency if he really wants to.

CARIBOO SPECIAL—I dropped in on Gil Kneiss of the WP the other day and found him still happy over the success of the all-expense one-week tour the WP operated recently from San Francisco up north by way of connecting lines to Prince George over the Pacific Great Eastern. They called the excursion the "Cariboo Country Special" and attracted 185 patrons at about $250 each.

One of the many things that struck Gil Kneiss on the trip was the youth of the enginemen on the PGE (it being a relatively new railroad). At the controls of one of the PGE's diesels which handled the special was an engineman only 21 years old. Gil has a pile of letters from satisfied customers who made the trip; and imaginative tours such as this one usually pay extra dividends in attention from the press.

THE MOST MISPRONOUNCED?—G. T. Bevan of GE locomotive sales nominates Schenectady, N. Y., as the station with the name most frequently misspelled and mispronounced. He says sleeping car porters call it She-neck-tee-dee, and that long-distance telephone operators do not have a much higher batting average. Mr. Bevan lives in She-neck-tee-dee and works in Erie, Pa., a 775-mile week-end commute; and he wonders if anybody outdistances him as a commuter.

HOW THEY GOT NAMED—Terminal Superintendent Ralph O. Jensen of the Soo Line at Chicago says that Rudyard and Kipling, Mich., were named by the late Daniel Willard when he was a trainmaster—after the famous author who was a friend of his. In Wisconsin and North Dakota there are three stations—Frederic, Douglas, and Underwood—perpetuating the full name of the one-time Soo Line general manager (later president of the Erie).

When the Soo's line from Glenwood, Minn., to Winnipeg was built 1902-4, the owner of a station site insisted that the station be named for his daughter Ada. Since there was already an Ada, Minn., the new station was named Forada.

The Electronic Yard: where freight trains get off to a fast start

Freight cars, loaded with farm products, pour into vast yards and are electronically weighed, routed, and assembled into new trains bound for markets all over the country.

More Railroad Progress like this depends on adequate earnings

Isn't this common sense?

Improvements such as the electronic freight yard cost a lot of money—money which the completely self-sustaining railroads must supply from their earnings. When railroads are able to improve their services, we all benefit. And railroads just aren't earning enough money these days to put into operation all the improvements they have developed, as fast as they would like.

Railroads *could* make enough money to do more of these things, for they are – by far – our most efficient system of mass transportation. But their earning power is hamstrung by outdated government policies that favor competing forms of transportation.

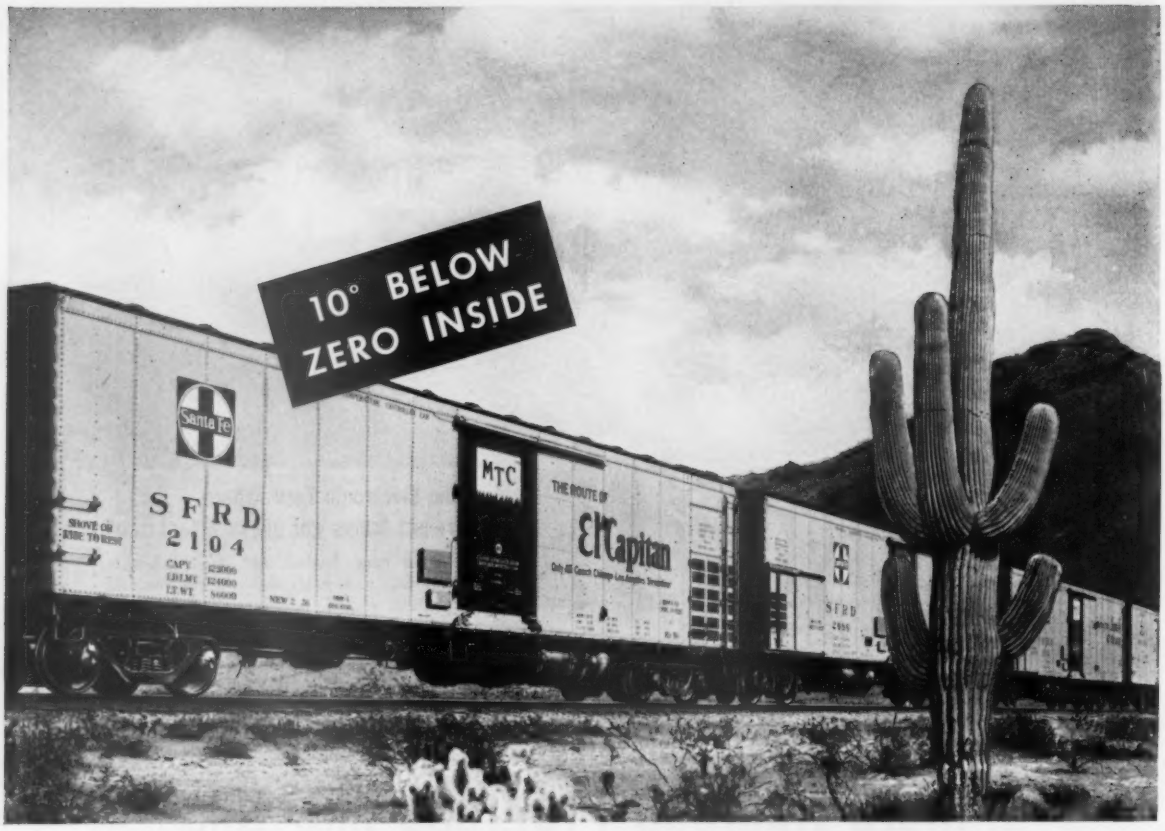
As a result, the railroads' earnings are reduced – and the nation loses some of the benefits of railroad progress. In your interest – in the interest of *every* American family – railroads should be given equal opportunity to earn an adequate return on their investment. *Isn't this common sense?*

AMERICA MOVES AHEAD WITH THE RAILROADS

Association of American Railroads, Washington, D. C.

YOUR BASIC TRANSPORTATION

Santa Fe and the Sub-Zero Fleet



Santa Fe's "deep freeze on wheels" keeps frozen foods frozen safely... *without ice*

Even when Santa Fe's Frozen Food Express rolls through the 115° sizzling heat of the desert, the temperature inside its Mechanical Temperature Control cars stays at 10° below zero.

These new MTC cars work something like your home refrigerator—except they're colder and bigger.

Each car can hold as much as 62 tons of packaged frozen food—enough concentrated frozen orange juice, for example, to give almost 600,000 persons a big glassful for breakfast.

Santa Fe helped pioneer these new "reefers" to serve our customers. More of them are being added to our present fleet.

Efficient as they are, these MTC cars may be just a forerunner of many new improvements to come in the transporting of perishable foods. Already there's talk of atomic boxcars, complete with irradiation devices for keeping foods fresh for extended periods of time—*without refrigeration.*

Whenever this and other new developments become practical, you'll find them on the Santa Fe—the railroad that's *always on the move toward a better way.*

SANTA FE SYSTEM LINES ... ***Serving the West and Southwest***

Santa Fe

Always on the move toward a better way

MARKET OUTLOOK *at a glance*

Carloadings Up Slightly From Previous Week

Loadings of revenue freight in the week ended August 3 totaled 740,711 cars, the Association of American Railroads announced on August 8. This was an increase of 4,304 cars, or 0.6%, compared with the previous week; an increase of 80,424 cars, or 12.2%, compared with the corresponding week last year; and a decrease of 19,676 cars, or 2.6%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended July 27 totaled 736,407 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, July 27

District	1957	1956	1955
Eastern	121,405	108,951	133,628
Allegheny	143,177	104,381	154,590
Pocahontas	68,878	60,947	62,376
Southern	116,292	123,203	121,602
Northwestern	124,633	75,643	136,864
Central Western	119,606	119,002	122,962
Southwestern	52,416	57,679	58,404
Total Western Districts	296,655	252,324	318,230
Total All Roads	736,407	649,806	790,426
Commodities:			
grain products	1,536,969	2,542,364	1,493,159
Livestock	161,891	209,270	207,183
Coal	3,882,225	3,928,170	3,532,139
Coke	360,546	359,492	329,279
Forest Products	1,181,245	1,350,396	1,289,975
Ore	1,558,858	1,315,223	1,399,763
Merchandise l.c.l.	1,615,808	1,769,664	1,866,332
Miscellaneous	10,251,059	10,851,050	10,777,728
Cumulative total, 30 weeks	20,548,602	21,325,629	20,895,558

IN CANADA.—Carloadings for the seven-day period ended July 21 totaled 89,970 cars, compared with 87,268 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
July 21, 1957	89,970	29,773
July 21, 1956	95,339	30,955
Cumulative Totals:		
July 21, 1957	2,188,242	931,700
July 21, 1956	2,374,678	985,678

New Equipment

FREIGHT-TRAIN CARS

► *Northern Pacific.*—Started construction last week at its Brainerd, Minn., shops of 450 50-foot double-door box cars to be followed on construction lines by order of 50 insulated box cars with D-F loaders to wind up 1957 production. NP will have built or bought 1,450 cars for almost $12,000,000 in year.

► *Western Pacific.*—Ordered for delivery first quarter 1958 from Pullman-Standard: 30 PS-2 covered hoppers, 2,003 cu ft capacity at unit cost of $8,930; 10 of 2,893 cu ft capacity at unit cost of $10,600.

► *Repair Ratio Still Is 4.5%.*—With 78,286 cars held for repairs out of a Class I fleet totaling 1,730,472 on July 1, the repair ratio remained at the June 1 level of 4.5%, AAR report summarized below shows. Figure compares with 3.9% of July 1, 1956.

	July 1, '57	July 1, '56	Change
Car Ownership	1,730,472	1,701,469	+ 28,283
Waiting Repairs	78,286	66,908	+ 11,378
Repair Ratio	4.5%	3.9%	+ 0.6%

Purchases & Inventories

► *Five Months' Purchases Up 5.3%.*—Purchases by domestic railroads of all types of materials in this year's first five months were $54,045,000, or 5.3%, higher than in the comparable 1956 period; purchase and inventory estimates in following tables were prepared by Railway Age.

PURCHASES & INVENTORIES

PURCHASES*

	May 1957	Five Months 1957	Five Months 1956
	(000)	(000)	(000)
Equipment**	$ 40,732	$ 268,160	$ 199,646
Rail	11,169	53,816	45,448
Crossties	7,329	36,233	30,927
Other Material	111,282	527,549	542,868
Total from Manufacturers	$170,512	$ 885,758	$ 818,889
Fuel	35,023	190,093	202,917
Grand Total	$205,535	$1,075,851	$1,021,806

* Subject to revision.
** Estimated value of orders.

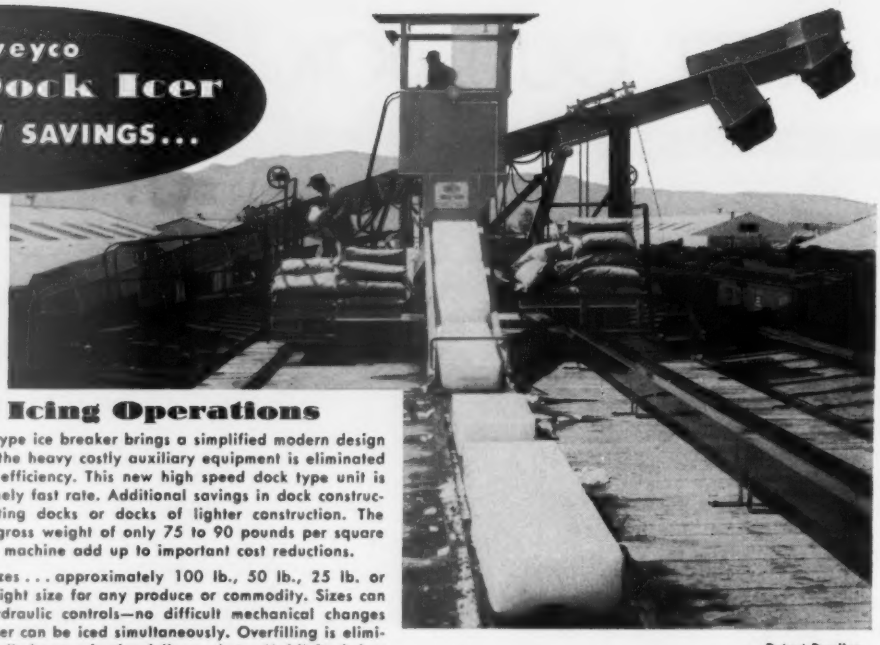
INVENTORIES*†

	May 1, 1957	May 1, 1956
	(000)	(000)
Rail	$ 62,005	$ 57,720
Crossties	100,090	95,201
Other Material	552,006	528,348
Scrap	21,466	21,093
Fuel	33,611	27,838
Total	$769,178	$730,200

* Subject to revision.
† All total inventory figures taken from ICC statement M-125 for month indicated.

a RAILWAY AGE time-saver page

Conveyco
Mobil Dock Icer
creates NEW SAVINGS...



...for Bunker Icing Operations

Development of a new screw type ice breaker brings a simplified modern design to refrigerator car icing. Much of the heavy costly auxiliary equipment is eliminated without sacrificing ruggedness or efficiency. This new high speed dock type unit is capable of icing cars at an extremely fast rate. Additional savings in dock construction are achieved by using existing docks or docks of lighter construction. The Conveyco Mobil Dock Icer has a gross weight of only 75 to 90 pounds per square foot. Initial savings in cost of the machine add up to important cost reductions.

Ice can be broken to four sizes . . . approximately 100 lb., 50 lb., 25 lb. or coarse crushed ice providing the right size for any produce or commodity. Sizes can be changed instantly through hydraulic controls—no difficult mechanical changes necessary. Both hatches of a bunker can be iced simultaneously. Overfilling is eliminated through hydraulically controlled gates in the delivery chute. Mobil Dock Icer has an internal capacity of nine 300-pound blocks of broken ice, which permits immediate resumption of icing when moving to the next car.

Power savings are important, too—All phases of the unit, ice pick-up conveyor, hydraulic system, breaker unit and traction motors operate on a total of 32 horsepower. Fewer moving parts eliminates trouble spots.

The Conveyco Mobil Dock Icer is designed for use on all docks—including truck bed level docks. The enclosed operator cab mounted high on the machine gives the operator a clear view of the entire operation.

Patent Pending

CONVEYCO Learn about these savings now—write for literature.

THE CONVEYOR COMPANY
3260 E. Slauson Avenue, Los Angeles 58, California

10 *UNUSED* YALE ELECTRIC

10 UNUSED YALE ELECTRIC MOBILE CRANES. 3 Ton Capacity, 12 to 18′ Telescopic Revolving Boom. Solid Rubber Tires. Never used. Government Surplus. **Built 1952 & 1953.** New price today approx. $17,400, less Battery & Charger. Our price less Battery & Charger:

$7,400 each.

MOBILE CRANES FOR SALE OR RENT

A & A MACHINERY CORP.
338 West Park Ave., Long Beach, N.Y.
General 1-2141

OPPORTUNITY!

If you are a young man with a vital interest in the industry of your choosing—ambitious, alert and desirous of advancement—then here is your opportunity to subscribe to a magazine which gives you railroad information that will supplement your experience in your department—and help you get ahead.

Each week RAILWAY AGE will come to you with the news and reports on developments that are taking place in every phase of railroading.

Start this information coming your way today by mailing the coupon below.

Railway Age 8-12-57
Circulation Department, Emmett St., Bristol, Conn.
Please send Railway Age to me every week:
☐ for one year $4 ☐ Payment enclosed
☐ for two years $6 ☐ Bill me after service begins
Name .....
Home Address .....
City ..... Zone ..... State .....
Railroad .....
Dept. ..... Title .....
Above rates apply TO RAILROAD MEN ONLY (in the U. S., Canada and Mexico)

KEEP BUYING

U. S.

SAVINGS BONDS

People in the News

CANADIAN NATIONAL.—Martin D. Whitaker, assistant to comptroller, appointed assistant to vice-president—accounting and finance, Montreal.

W. C. Bowra, special assistant, operation department, Central region, Toronto, appointed general manager of that region, succeeding **N. A. Walford,** retired. **W. B. Jackson,** district engineer, Southern Ontario district, Toronto, appointed general superintendent, Northern Ontario district, North Bay, Ont., succeeding **J. W. Demcoe,** transferred as general superintendent to the new Maritime district, at Moncton, N. B. **Ernest J. Cooke,** manager, Newfoundland district, St. John's, Nfld., named manager and general superintendent of that district. **H. T. Walton,** superintendent, Toronoto terminals division, appointed superintendent, London division, London, Ont., succeeding **C. I. Warren,** retired.

C. I. Biegler, acting district engineer at Toronto, appointed district engineer, Southern Ontario district, Toronto.

CANADIAN PACIFIC.—S. M. Gossage, manager of labor relations, Montreal, appointed assistant vice-president, personnel, succeeding **J. R. Kimpton,** retired. **Keith Campbell,** assistant to manager labor relations, Montreal, appointed assistant manager labor relations. **W. G. Thomson,** supervisor of wage administration, Montreal, appointed labor relations assistant.

D. F. Haney, assistant engineer of diesel equipment, Montreal, appointed engineer of standards and methods there. **B. B. Woodland,** division master mechanic at Winnipeg appointed assistant engineer of motive power, Montreal.

CHICAGO & NORTH WESTERN.—Harvey B. Buchholz will head a new Chicago & North Western industrial development "branch office" in Milwaukee. Mr. Buchholz, with C&NW for 33 years, was formerly a general freight and passenger agent at Milwaukee, later served as freight traffic manager in charge of the road's eastern region before joining the industrial development staff at Chicago last year. The Milwaukee office, first "branch" to be set up under C&NW's expanded ID program, will push development of the Wisconsin-upper Michigan area, which is served by some 3,700 miles of North Western trackage.

DELAWARE & HUDSON.—Randolph J. D. Kelly, assistant to chief engineer, appointed engineer maintenance of way, succeeding **Joseph C. Brennan** promoted (Railway Age, July 29, p. 46). **Howard B. Clarkson** engineer of structures, succeeds Mr. Kelly, and **John J. Connor** special engineer in chief engineer's office, succeeds Mr. Clarkson; all located at Albany, N. Y.

FORT WORTH & DENVER.—W. O. Frame appointed assistant to vice-president; **M. G. Monaghan,** general manager, Fort Worth, Tex.; **J. D. Montgomery,** superintendent, Amarillo, Tex., and **W. L. Fitzgerald,** trainmaster, Amarillo.

FRISCO.—P. E. Odom terminal trainmaster, West Tulsa, Okla., appointed manager of data processing, St. Louis, to succeed **E. M. Peak** promoted to assistant to comptroller. **G. M. Rayburn,** special representative, St. Louis, named assistant auditor there. **P. J. Schmitz** appointed assistant to general manager, Springfield, Mo.; **H. L. Gastler,** superintendent, Western division, Enid, Okla.; **G. A. Honey,** assistant superintendent-roadmaster, York, Ala.; **L. J. King,** assistant superintendent terminals, Memphis, Tenn.; **R. H. Paschal,** assistant superintendent, Birmingham subdivision, Amory, Miss. The following terminal trainmasters named: **D W. Patton,** Memphis; **K. E. Richardson,** Birmingham, Ala.; **R. P. Shoaf,** Tulsa, Okla., and **R. E. Tyndall,** Memphis.

W. T. Bryan appointed director of industrial engineering, Springfield, Mo.

W. C. Bowra
CNR

S. M. GOSSAGE
CPR

ILLINOIS CENTRAL.—John T. McCue appointed district passenger agent, Springfield, Ill., succeeding **Fred W. Stephenson,** deceased. **C. Joseph Petty** named district passenger agent, Milwaukee, Wis., replacing **Joseph C. LaCombe,** transferred.

INTERSTATE COMMERCE COMMISSION.—Vernon V. Baker, assistant director, Bureau of Finance, has been named acting director, succeeding **Roger T. Boyden,** retired.

KANSAS CITY SOUTHERN.—Stanley A. Watson, chief clerk in the passenger department, Shreveport, La., appointed passenger traffic manager there, succeeding **William C. Clark,** who retired July 31.

LEHIGH VALLEY.—Carl W. Baker, superintendent, Buffalo division, at Buffalo, N. Y., transferred to New York division, at Jersey City, N. J., succeeding **Loyall P. Zeigler,** retired. **John E. Crowley,** assistant division engineer, New York division, at Wilkes-Barre, Pa., appointed division superintendent at Buffalo, succeeding Mr. Baker.

MAINE CENTRAL.—Edward C. Paine, assistant comptroller, has retired. **John F. Gerity,** auditor disbursements, appointed assistant comptroller and **George H. Ellis,** auditor revenue, named assistant comptroller-auditor revenue.

MILWAUKEE.—Frank J. Newell, assistant public relations officer, in charge of press, radio and TV relations, Chicago, appointed director of publicity there.

MISSOURI PACIFIC.—A. M. Slosar appointed general agent, Sioux City, Iowa, succeeding **Rolla G. Haines,** retired (Railway Age, July 22, p. 46).

NEW YORK CENTRAL.—J. M. Gilmore, assistant district engineer of structures, Indianapolis, Ind., has assumed the duties of **L. H. Schaeperklaus,** district engineer of structures, who retired July 1. Position of district engineer of structures abolished.

RAILWAY EXPRESS AGENCY.—Harold E. Shipley, eastern sales manager, appointed director advertising and promotion, succeeding **E. W. Hull,** retired. **Victor Dell Aquila,** assistant director advertising and promotion, appointed advertising manager, both with headquarters in New York.

Truman T. Moore, superintendent, Buffalo-Western New York division, Buffalo, appointed assistant to vice-president—operations, New York. **J. J. Ross,** superintendent, Cleveland division, transferred to Buffalo, succeeding Mr. Moore. **George E. Bassett,** supervisor of organization, New York, named superintendent at Cleveland, succeeding Mr. Ross. **William J. Wallace,** assistant superintendent at Boston, appointed supervisor of organization, New York.

SANTA FE.—The following trainmasters transferred: **J. M. Watkins,** from Amarillo, Tex. to Dodge City, Kan.; **L. P. Heath,** from Dodge City to Pueblo, Colo., and **C. T. Herzog,** from Pueblo to Amarillo.

E. O. Chaddock, trainmaster, Carlsbad, N.M., appointed trainmaster, Slaton division, Slaton, Tex., succeeding **F. L. Elterman,** promoted (Railway Age, August 5, p. 42). **J. A. Carrier** named to succeed Mr. Chaddock.

John E. Crowley
LV

Frank J. Newell
Milwaukee

Supply Trade

H. G. Willson, manager of the customer services department, **Union Switch & Signal-Division of Westinghouse Air Brake Company,** has been named assistant to the general sales manager, railway sales. **Robert H. Tomlinson,** design engineer in the equipment engineering department, has been appointed sales engineer, railway sales, at Pittsburgh, and **W. G. Kendall** has been transferred as sales engineer from Pittsburgh to New York.

John P. Delaney, general manager of the transportation division, **Alco Products, Inc.,** has been elected a vice-president, in charge of operations in both the transportation and spring and forge divisions. **Daniel W. Cameron,** who has been vice-president-manufacturing at Schenectady, has been appointed vice-president-manufacturing, **Montreal Locomotive Works, Ltd.,** an affiliate of Alco.

John E. Pilon, governmental sales representative of **Caterpillar Tractor Company,** Washington, D. C., has been appointed district representative, southwest sales division, San Francisco.

D. H. Mitchell has been appointed eastern sales manager for **LeTourneau-Westinghouse Company,** at Peoria, Ill. He was formerly district sales representative in Virginia and the Carolinas, and has been succeeded in that position by **O. C. Zachary,** service engineer.

Republic Coal & Coke Co. has established a new railroad diesel fuel division to market fuel oils to railroad specifications. **Walter A. Galland,** vice-president, has been named to head the division's purchasing and sales from the Chicago office, and **J. Louis Reiber,** vice-president, at St. Louis, is in charge of service to that area.

H. Lindley Hosford has been named district manager of **Okonite Company's** Philadelphia office, succeeding **J. G. Wicks,** now regional sales manager of the electric wire and cable organization. Mr. Hosford has been in charge of government orders at the company's Passaic, N. J., headquarters.

Milford H. Luttrell, manager of the southeastern division of **Walworth Company,** has been named general sales manager.

James M. Brasfield has joined the **R. H. Bogle Company** as sales engineer, at Alexandria, Va. **William C. Parrish, Jr.,** service engineer, has been appointed plant superintendent, succeeding **R. E. Stuart,** deceased.

Blistering Heat or Freezing Cold

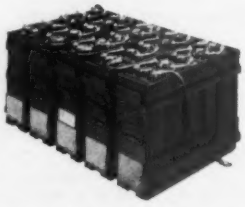
it's all the same to an EDISON battery

. . . and *now* new active material gives the world's longest-lived battery even greater durability and life

OVER THE YEARS . . . in every kind of weather, in the widest temperature extremes . . . EDISON storage batteries have offered stand-by power unmatched in economy and dependability by any other battery made.

Today, EDISON storage batteries offer *even greater durability* and longer life through the use of a new active material. Developed by Edison research to meet the increasing demands of today's lighting and air-conditioning loads, this new material—on long-term tests—has shown it can provide new durability and economy under the full range of passenger car operating conditions.

For information on EDISON storage batteries contact your local Edison representative, or write Edison Storage Battery Division, Thomas A. Edison Industries, West Orange, N. J. In Canada: International Equipment Co., Ltd., 90 Bates Road, Montreal, P. Q.



Railroads depend on Edison batteries for five important power services

—operating power on industrial trucks • stand-by power for communications equipment on caboose cars • stand-by power for air conditioning and lighting on passenger train cars • stand-by power for all types of railway signaling • multiple unit controls.

Edison NICKEL–IRON –ALKALINE **Storage Batteries**

. . . a product of Thomas A. Edison Industries of McGRAW EDISON

Rate Hike to Yield $443 Million

(Continued from page 10)

Aside from its review of evidence relating to specific commodities, the majority report contained detailed discussions of the rate-of-return issue, and the financial condition of the railroads. In the latter connection, it said the need for adequate earnings to cover installment payments on equipment obligations "is particularly apparent."

As to improvements like "push button yards" and mechanized maintenance, the commission said it realized that they cost money; but it was "not impressed with contentions that funds are not available at prevailing interest rates," in view of the "opportunities for savings such as are shown on this record."

The commission put the increased costs it was undertaking to offset at about $627 million, including $176 million for the wage increase and higher payroll taxes due November 1. It estimated that the authorized increases would give the eastern and western roads "some additional revenue over and above such costs," which "should help them in carrying forward their plans for needed capital improvement and modernization." The commission added: "We are convinced, however, that the full increase in freight rates sought by them would tend to defeat this objective." Then came the advice that increased efficiency was the railroads' way to a better rate of return.

Like the concurring commissioners, the majority issued a warning about the competition of private carriage. "Whether the railroads will be able to maintain the increases," it said, "will depend largely upon whether their principal competitors, the motor carriers, make similar increases in their rates and charges. . . . Both the railroads and the motor carriers must face the fact that, if their rates become too high, more traffic will be diverted from common carrier to private carrier transportation."

Meanwhile, the commission rejected a suggestion of the Munitions Carriers Conference of American Trucking Associations that it admonish the railroads to increase their Section 22 quotations, or make the authorized increases contingent upon their doing so. "It is plain that Congress has intended to place the government in a preferred position as a shipper," the report said.

Also rejected were pleas of water carriers on inland waterways and the Great Lakes who wanted the railroads admonished against cutting water-competitive rates or required to take the entire amount of increases authorized on such traffic. On that matter, the commission had this to say:

"While we have often observed that we expect the railroads to retain all revenues which they may be able to obtain as a result of these general revenue increase proceedings, we believe they should be left free to meet their competition wherever it may be done lawfully under the act."

How Are They Doing?

(*Continued from page 32*)

Two areas of current news interest—piggyback and passenger service—draw from this modern, old-time railroader some interesting observations.

He's frankly skeptical about the potential of TOFC traffic in the South. "Very little use" of this revitalized transport concept has been made by Norfolk & Western shippers despite a tie-in with the Pennsylvania TrucTrain plan, giving good service to important destinations.

He points out that labor conditions in the South are somewhat different from those in more industrialized northern states. More individually owned trucks are used in the South also, he says. Further, the toll highway is not a factor there. And truck transport costs have been held so low that often railroads would have to trim their piggyback rates too much to compete.

Passenger Outlook Poor

As to passenger service on the railroads, Mr. Smith sees little likelihood that it's "coming back." He said wartime passenger volumes encouraged the N&W to acquire the "two best sets of equipment you could get" to set up its "Powhatan Arrow" service. This has proved to be "highly unprofitable" in recent years, however, and "our passenger volume is pretty steadily decreasing."

More encouraging is the road's overall freight picture, a picture painted on a backdrop of big capital expenditures and highlighted by the blossoming export coal business.

Building for Progress

The road is extending its Wilder spur in Russell County, Virginia, connecting with the new Dump Creek branch; it recently enlarged its Portlock yard at South Norfolk; there's a new warehouse at Lamberts Point, Va.; its new Roanoke shops turn out cars at the rate of 20 a day; and, it might be noted, many of the features in the new retarder yards going up elsewhere were first built into the N&W coal hump yard at Portsmouth, Ohio, several years ago.

Not surprising, then, is the report that the N&W, contrary to the pattern for the country, is running head of last year's figures in both earnings and loadings. "We're fortunate in being just a little bit ahead," Mr. Smith notes, giving credit for the improvement to the rising coal volume —though the rest of the road's freight business is very nearly equal to last year's.

Catch Hot Boxes Automatically

Proven in Daily Operation, Servosafe* Hot Box Detectives Pinpoint Overheated Journal Boxes Instantaneously and Automatically

SERVO CORPORATION OF AMERICA
20-20 Jericho Turnpike
New Hyde Park, L.I., N.Y.

Servosafe Hot Box Detective, manufactured by Servo Corporation, has been *proven* the most reliable, practical, and accurate way to catch hot boxes. It has already been installed on such railroads as:

- **Boston & Maine Railroad**
- **Chesapeake & Ohio**
- **Norfolk & Western**
- **Reading Railroad**

Servosafe Hot Box Detective, installed at trackside, detects potentially dangerous journal boxes without interference in normal operations. Even hot boxes that cannot be spotted by a human observer are detected on trains moving at 10 to over 60 mph. The system indicates the position of the car or cars, and the exact locations of the defective journals.

All the details on the Uni-directional and Bi-directional Servosafe Hot Box Detectives, plus operating and engineering specifications are available for the asking. Simply request, on your company letterhead, TDS-7600A.

*t.m.

Current Publications

ANNUALS

A REVIEW OF RAILWAY OPERATIONS IN 1956. 43 pages. Reprinted from Railway Age, January 14, 1957, with revised figures. Bureau of Railway Economis, Association of American Railroads, Transportation Bldg., Washington 6, D.C. Free.

•

ANNUAL 1957. Indian Railways, April 1957. The Editor, Indian Railways, Post Box 467, New Delhi, India.

This magazine made its first appearance in April 1956. The current 246-page issue is a comprehensive review of technical and economic developments on Indian Railways and in other parts of the world.

•

BOOKS

THE SOUTH WESTERN RAILWAY; ITS MECHANICAL HISTORY AND BACKGROUND 1838-1922, by Hamilton Ellis. 256 pages, illustrations. George Allen & Unwin Ltd., London. Available in this country from the Macmillan Company, 60 Fifth ave., New York 11. $6.75.

Of the great British railways before 1923, the senior company was the London and South Western, or as it was generally called, the South Western. Older than any of the big northern companies, older even than the Great Western, its history was unbroken by amalgamation until it became the major constituent of the Southern Railway. Its mechanical history, with which this book is concerned, was outstanding. It was served by a succession of brilliant locomotive engineers; it was a pioneer of automatic signaling; and all-round quality distinguished its train service and its rolling stock.

•

CAVALCADE OF NEW ZEALAND LOCOMOTIVES; AN HISTORICAL SURVEY OF THE RAILWAY ENGINE IN NEW ZEALAND SINCE 1863, by A. N. Palmer and W. W. Stewart. 144 pages, illustrations. end-paper maps. A. H. and A. W. Reed, Wellington, N.Z. Available in this country from W. S. Heinman, 400 E. 72nd st., New York 21, $5.50.

This book, written by two railway enthusiasts, describes nearly 120 different types of locomotives which have been operated by the New Zealand Government Railways. Beginning with the broad-gage "Pilgrim" in 1863, it traces the evolution of the steam locomotive to the sleek thoroughbred of today. All the various types of electric locomotives are covered.

•

INTERNATIONALES EISENBAHNRECHT: QUELLENSAMMLUNG (International Railroad Law; a Compilation of Treaties and Agreements) By Werner Haustein, and Willibald Pschirrer, 1691 pages (2 vol.) Verkehrswissenschaftliche Lehrmittelgesellschaft M.B.H., Frankfurt, Germany. $23.00

These two volumes contain a compilation of all treaties, agreements, charters and contracts under which European railroads and railroad organizations operate between the various European nations, dating from 1852 to 1956. The documents compiled include not only multilateral treaties between nations, but also traffic and operating agreements and charters, by-laws, and regulations of international organizations concerned with transportation, such as the International Labour Organization.

The documents, for the most part, are printed in both German and French on facing pages, and are preceded by very illuminating preliminary remarks on the history of efforts leading to the promulgation of the documents, methods of effectuating the agreements, and pertinent bibliography. This comprehensive work is an indispensable aid to anyone making a study of European railroads and transportation. It is a companion work to Dr. Haustein's authoritative commentary on international railroad law (Das Internationale Offentliche Eisenbahnrecht, Frankfurt, 1953).

•

PERIODICAL ARTICLES

THE RAILROADS: ECONOMICS MAY BE STARTING TO WORK FOR THEM. Business Week, July 13, 1957, pp 84-111. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Single reprints will be available to subscribers on request without charge. Quantity prices on request.

This special report tells why economics may be beginning to work for the railroads. The steel wheel on a steel rail still produces ton miles with less effort than any other form of transportation; now truckers' costs are likely to rise faster than railroads'. Rail freight business is growing as the economy grows; passenger business, which runs deficits, will be held to a minimum. Modernization—new machines, new research, new salesmanship, better management methods—pays the rails big dividends.

•

THE RAILROADS PUNISH THE PASSENGERS, by John L. Hess. The Atlantic Monthly, July 1957, pp 59-62. The Atlantic Monthly Company, 8 Arlington st., Boston 16. Single copies, 50¢.

Mr. Hess asks "Are the roads cutting services because fewer persons are using them, or are the riders quitting the railroads because the services are getting worse and more expensive?" He discusses the New York Central and Pennsylvania request for a 45% fare boost, the passenger deficit, commutation service, and the proposed transport authorities. In conclusion he says: "The railroads' attack on the passenger problem has been a defensive one, to slash services and raise fares. Nobody has tried to improve services and cut fares. Who knows—such positive steps might even result in passenger service paying its way."

•

THE BIG GIVEAWAY, by Luther Miller. Railway Progress, July 1957, pp 10-15. Federation for Railway Progress, 1430 K st., N.W., Washington, D.C. Single copies, 35¢.

Eighty-five per cent of the American people have never boarded an airplane—yet they have had to pay billions of dollars in taxes to subsidize civil aviation. Many now believe, with President Eisenhower, that a system of user charges can best stem the fast-rising tide of "the big giveaway."

•

PAMPHLETS

BRITISH TRANSPORT, 1956. 25 pages, illustrations, charts, tables. British Transport Commission, 222 Marylebone Road, London, N.W. 1. One shilling.

Contains notes on the annual report and accounts of the British Transport Commission for the year ended December 31, 1956.

Are you the

RAILWAY CIVIL ENGINEER

we're looking for?

Caterpillar Tractor Co. is experiencing the greatest expansion in its history. 1956 sales topped $686 million; new facilities point to a future without limit.

You could share this future if you are a graduate civil engineer with 5 years' experience in a supervisory capacity on railroad maintenance projects, or if you have been a Resident Engineer (or comparable position) in railroad construction.

Your responsibilities would include contact with railroad executives and Caterpillar Dealer personnel, as well as the broad application of Caterpillar products on railroad construction and on roadway maintenance projects.

Your salary will be determined by your background and by your previous job experience.

If you are between 30 and 39, personable, enjoy social contacts and traveling, and are excited at the prospect of a rewarding future, write or call:

MR. P. C. PERRY
Employment Dept. RCE
Caterpillar Tractor Co.
Peoria, Illinois

ADVERTISERS

A & A Machinery Corporation 44
American Hoist & Derrick Company 28
American Telephone & Telegraph Company 11
Armco Steel Corporation 3
Association of American Railroads 41
Bird & Son, Inc. 39
Buckeye Steel Castings Company 33
Caterpillar Tractor Company 48
Classified Advertisements 49
Conveyor Company, The 44
Cornell-Dubilier Electric Corporation 37
Edgewater Steel Company 4
Edison, Thomas A., Industries of McGraw Edison Company 46
Electro-Motive Division, General Motors 20-21
Enterprise Railway Equipment Company 34
General Railway Signal Company 26-27
Gould-National Batteries, Inc. 30
Heyl & Patterson, Inc. 8
Hunt Company, Robert W. 49
Hunt-Spiller Manufacturing Corporation 31
Hyatt Bearings Division, General Motors Corporation 6
Iron & Steel Products, Inc. 49
Mahon Company, R. C., The ..... Inside Front Cover
Miller Lubricator Company 37
Okonite Company, The ..... Inside Back Cover
Railway Educational Bureau, The 49
Railway Wheel Association 25
Santa Fe System Lines 42
Servo Corporation of America 47
Schoonmaker Company, Inc., A. G. 49
Standard Car Truck Company 29
Timken Roller Bearing Company ..... Back Cover
Union Switch & Signal Division of Westinghouse Air Brake Company 16-17
Vapor Heating Corporation 23

MECHANICAL ENGINEER

Graduate mechanical engineer, 20 years experience in railway equipment, development, design, engineering analysis, costs, and departmental supervision. Interested in a supervisory or administrative position demanding creative and progressive programs. Address Box 1226, RAILWAY AGE, 79 West Monroe St., Chicago 3, Illinois.

SALES TRAINEE

Wanted by railway supply division of a growing company. Opportunity for extensive travel with car and expenses furnished. Good salary. 25—32 years old, military requirements fulfilled. Some railroad experience desirable. Write Box 835, RAILWAY AGE, 30 Church St., New York 7, N.Y. All replies confidential.

FOR SALE
RECONDITIONED
RAILROAD CARS FOR INTERPLANT USE
GONDOLAS • BOX • FLAT
ERMAN-HOWELL DIVISION
332 South Michigan Avenue
Chicago 4, Illinois
WEbster 9-0500

CLASSIFIED ADVERTISEMENTS

Rates: $10 per column inch (1" deep x 1⅝" wide)
Equipment used or resale acceptable in this section

FOR SALE
railway equipment
Used—As Is—Reconditioned

RAILWAY CARS
All Types

LOCOMOTIVES
Diesel, Steam, Gasoline, Diesel-Electric

special offerings
20 Cupola Type, Steel Underframe Caboose Cars, Cast Steel Trucks
1—Browning No. 3 Diesel Locomotive Crane
Standard Gauge—27½-Ton Capacity
IMMEDIATE DELIVERY!

Service-tested Freight Car Repair Parts For All Types of Cars

Railway Tank Cars and Storage Tanks
6,000- 8,000- and 10,000-gallon Cleaned and Tested

IRON & STEEL PRODUCTS, INC.
"ANYTHING containing IRON or STEEL"

General Office: 13486 So. Brainard Ave. Chicago 33, Illinois Phone: Mitchell 6-1212
New York Office: 50-c Church Street New York 7, New York Phone: BEekman 3-9290

FOR SALE

FAIRBANKS, MORSE CO. — OPPOSED PISTON DIESEL ENGINE SPARE PARTS NEW-UNUSED — BIG SAVINGS

Crankshafts (Upper & Lower)
Blowers
Vertical Drive Assembly
Bearings—Main, Con. rod
Connecting Rods
Pistons
Many other parts

SERVICE PARTS DIVISION
A. G. SCHOONMAKER COMPANY, INC.

New York Address
50 Church Street
New York 7, N.Y.
Ph. Digby 9-4350

California Address
Ft. Spring Street
Sausalito, California
Ph. Edgewater 2-1490

HELP WANTED MALE
Railroad cost accountant

Experienced in railroad statistics and costs, also testimony writing. Excellent salary and working conditions. Under 40.

Group hospitalization and insurance. Willing to locate in East with a large Eastern Railroad. State age, education, and experience in first reply. All replies confidential. Address Box 833, RAILWAY AGE, 30 Church St., New York 7, N.Y.

3000 APPRENTICES IN TRAINING

They are employed by the railroads which use our texts and grading service to train *all* their apprentices. Staffed by railroad men since 1909. The Railway Educational Bureau offers a complete 3- or 4-year program of technical lessons—from blueprint reading through Diesel Maintenance. All texts written with simplicity plus technical accuracy for on-the-job learning. Description of plan followed and fields covered sent without obligation. Special programs are available for individual employees preparing for advancement. THE RAILWAY EDUCATIONAL BUREAU, 1809 Capitol Avenue, Omaha 2, Nebraska.

Robert W. Hunt Company
ENGINEERS
Inspection—Tests—Consultation
All Railway Equipment
Structures and Materials
General Offices:
175 W. Jackson Boulevard
CHICAGO
New York-Pittsburgh-St. Louis

BUY
BONDS

FOR SALE
4 Whiting High Lift Electric Portable Jacks, 25 ton capacity; 440 volt; 3 phase; 60 cycle 7½ H.P. motors. Late model.
D. D. Phillips, Purchasing Agent
Boston and Maine Railroad
North Station
Boston 14, Mass.

Let's Look at the Gateways

The "gateways"—places where the railroads serving one territory connect with those serving another—are an integral part of the nation's railroad system. And a chain is no stronger than its weakest link.

Getting a car of freight through some of the gateways often requires as much time as would a line-haul of 1,000 miles.

Improved performance through the gateways is as important to economy and faster service as better handling of freight by individual railroads.

The biggest of the gateways, of course, is Chicago—but there are many others, and the performance of all of them is important, from the standpoint of service as well as expense.

If it takes two or three days for a car to get through a gateway, that delay offsets to a large degree the great improvement which most railroads are making in the on-line movement of freight. And if interchange at gateways is carried on by a multitude of criss-crossing movements of a few cars each, the resultant expense is just as much a burden to the railroads concerned as if the companies involved were moving freight local to their own lines in retail driblets of a few cars each.

•

Gateway operations have been improved in some places—but probably not, on the average, to the degree that on-line operations have, on most progressive railroads. In other places, where gateway operations differ but little from those of a half-century ago, then every railroad entering that gateway suffers from a lack of modernity. A railroad just isn't thoroughly up-to-date—no matter how modernized its own operations may be—if its mechanism of connection with other railroads is slow and expensive, because gateway operations have not been modernized.

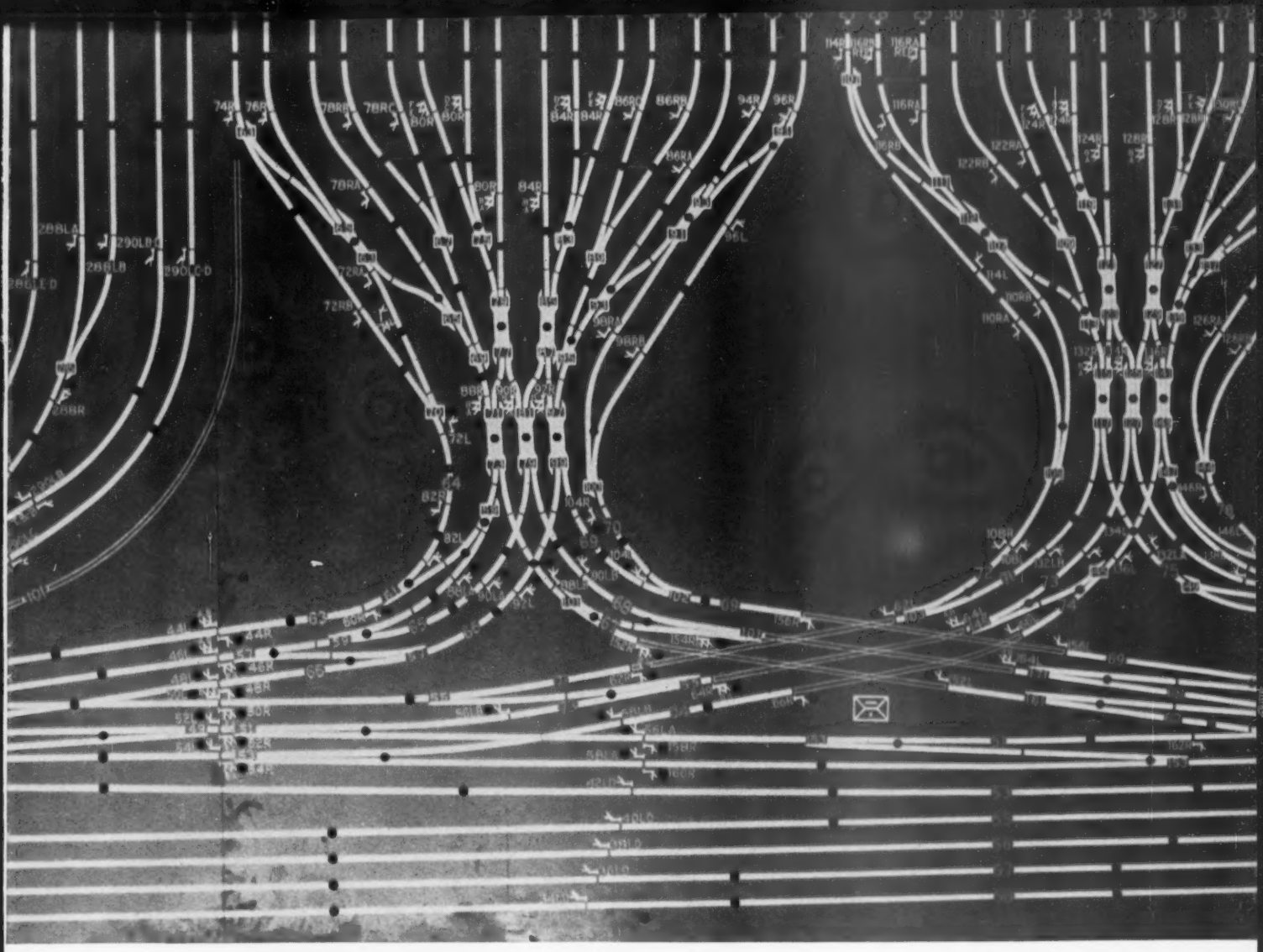
•

Most of the gateway operations "just growed," and improvements have usually been piecemeal. Railroad lines were built from different directions into a common meeting point, and interchange routes were developed one by one.

Few of the gateway operations have had the advantage of comprehensive planning. The outstanding exception is the Washington gateway, where freight terminal and interchange operations are concentrated in Potomac yard. Of course, relatively few lines are involved at Washington, compared to the number entering some of the other gateways. Nevertheless, the systematized operation attained at Potomac yard certainly suggests that what has been accomplished there is, to some degree, a possibility at other gateways.

From the standpoint of the purchaser of transportation service, the railroads are a single and indivisible system of transportation. If freight moves efficiently and rapidly on Railroad A and on Railroad B, but loses time and accumulates expense in moving from the one railroad to the other, then the net effect on railroad service, from the shipper's standpoint, is exactly the same as if neither Railroad A nor Railroad B were giving good service.

RIVALRY FOR AVAILABLE FUNDS: There are indications that railroad managements are becoming more aware, all the time, of the importance of gateway performance in the provision of overall economy and speed in railroad freight service. It is hard to find the investment money for all the railroad improvements that are needed to improve service and profits—but in the weighing of the relative merits of rival claims upon available funds, the situation of the gateways should certainly not be overlooked. A dollar or an hour saved at a gateway is just as important to the railroads and shippers involved, as is a dollar or an hour saved anywhere else in railroad operation.



Modern CTC board

Take a tip from the big board:

Never take electrical power for granted!

Today's terrific railroad traffic is seen most graphically on the CTC boards—from which a handful of experts call the signals for an entire system.

The only links between these men and the trains they control are electronic and electrical circuits *that must not fail.* This means that only the most reliable, most long-lived, most exhaustively tested cables should go into these control circuits.

And that spells Okonite. Proof? The majority of Class I railroads use Okonite cables—not alone for signal circuits, but also for communications, power, diesel electric locomotive wiring, and other uses.

Because Okonite, and only Okonite, makes cable by all four insulating methods (strip, dip, extrusion and taping) you'll get unprejudiced recommendations—whatever your needs—whenever you talk to Okonite.

Don't wait for dangerous, expensive failures to find out that the only cable bargain is absolute reliability. The Okonite Company, Passaic, N. J.

***where there's electrical power . . . there's* OKONITE CABLE**

4568-A

Now! 20 miles of "Roller Freight" cars on Western Maryland Railway

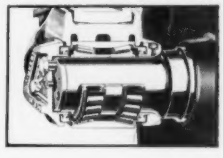
THE Western Maryland Railway has boosted its total of "Roller Freight" cars to 2,051, about 18% of its freight car rolling stock. That's 20 miles of cars on Timken® tapered roller bearings. Western Maryland believes in "Roller Freight" because it knows that Timken bearings help win new business by speeding shipments while cutting maintenance and operating costs to the bone.

Timken bearings end the No. 1 cause of freight train delay—the hot box problem. They *roll* the load, don't slide it. There's no metal-to-metal sliding friction. Timken bearings permit freight trains to run at passenger train speeds because they remove all speed restrictions due to bearings.

Timken bearings save time in terminals, too. You can inspect Timken bearings in 1/10th the time it takes to inspect friction bearings. And Timken bearings can go up to three years without adding lubricant.

By reducing terminal bearing inspection time 90%, lubricant costs as much as 95%, the railroads are saving millions of dollars annually with Timken bearings. When all freight is "Roller Freight", they'll save an estimated $224 million a year.

The Western Maryland and 60 other railroads and private car owners are helping to speed that day. They have more than 24,000 Timken-bearing-equipped cars in service or on order, about ⅓ of them in interchange. Orders for "Roller Freight" have shot up 43% in the last 15 months alone. The big switch to "Roller Freight" is on. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ont. Cable: "TIMROSCO".



TIMKEN TAPERED ROLLER BEARINGS ROLL THE LOAD

TRADE-MARK REG. U. S. PAT. OFF.